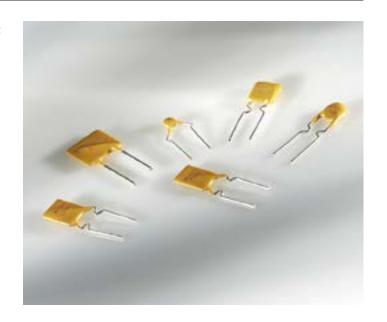
# POLYSWITCH RESETTABLE DEVICES



# Radial-Leaded Devices

Littelfuse's PolySwitch radial-leaded products represent the most comprehensive and complete set of PPTC products available in the industry today.

- RGEF series for hold currents up to 14A
- RHEF series for flatter thermal derating and operating temperatures up to 125°C
- RUEF series for balance of voltage rating (30V) and hold current (up to 9A)
- RUSBF series for fast time-to-trip and low-resistance computer applications
- RXEF series for low hold currents (down to 50mA) and high voltage rating (up to 72V)
- RKEF series for balance of voltage rating (60V) and hold current (up to 5A)
- · Now offering halogen free versions of all products



#### **BENEFITS**

- Many product choices help provide engineers more design flexibility
- Compatible with high-volume electronics assembly
- Assists in meeting regulatory requirements
- Higher voltage ratings allow use in new applications

#### **FFATURES**

- RoHS compliant
- Halogen free (refers to: Br≥900ppm, Cl≥900ppm, Br+Cl≥1500ppm)
- Broadest range of radial-leaded resettable devices available in the industry
- Current ratings from 50mA to 15A
- Voltage ratings from 6V (computer and electronic applications) to 72V
- Agency recognition: UL, CSA, TÜV, CQC\*\*
- Fast time-to-trip
- · Low resistance

#### **APPLICATIONS**

- · Satellite video receivers
- Industrial controls
- Transformers
- Modems
- CD-ROMs
- · Game machines
- Phones
- Fax machines
- · Analog and digital line cards
- Printers
- Intelligent appliance
- · Robotic machine
- · Power supply
- Security
- Lighting
- Medical application



<sup>\*\*</sup>CQC only applies to RXEF, RUEF family parts

#### Radial-Leaded Devices

#### **Application Selection Guide**

The guide below lists PolySwitch radial-leaded devices that are typically used in each of the applications described.

Specifications for the suggested device part numbers can be found in this section.

Once a part number has been selected, the user should evaluate and test each product for its intended application.

Duraturation Application	PolySwitch Resettable Devices	Key Selection Criteria	
Protection Application	Small Size	Flatter Derating	Lower Current Higher Voltage
Electromagnetic Loads	RGEF (<16V), RUEF (<30V)	RHEF (<16V)	RXEF (<72V), RKEF (<60V)
Halogen Lighting	RGEF (<16V), RUEF (<30V)	RHEF (<16V)	RXEF (<72V), RKEF (<60V)
Lighting Ballast	RXEF (<72V)		
Loudspeakers	RXEF (<72V)		RXEF (<72V), RKEF (<60V)
Medical Equipment	RGEF (<16V), RUEF (<30V)	RHEF (<16V)	RXEF (<72V), RKEF (<60V)
MOSFET Devices	RGEF (<16V), RUEF (<30V)	RHEF (<16V)	RXEF (<72V), RKEF (<60V)
Motors, Fans and Blowers	RXEF (<72V), RGEF (<16V)	RHEF (<16V)	
POS Equipment	RXEF (<72V), RUEF (<30V)		
Process and Industrial Controls	RXEF (<72V), RUEF (<30V)		
Satellite Video Receivers	RGEF (<16V), RUEF (<30V)	RHEF (<16V)	RXEF (<72V), RKEF (<60V)
Security and Fire Alarm Systems	RGEF (<16V), RUEF (<30V)	RHEF (<16V)	RXEF (<72V), RKEF (<60V)
Test and Measurement Equipment	RGEF (<16V), RUEF (<30V)	RHEF (<16V)	RXEF (<72V), RKEF (<60V)
Transformers	RGEF (<16V), RUEF (<30V)	RHEF (<16V)	RXEF (<72V), RKEF (<60V)
DDC Computer and Consumer Electronics	RUEF (<30V)		
Mouse and Keyboard	RUEF (<30V)		
SCSI	RUEF (<30V)		
USB	RUSBF (<16V)		
Traces and Printed Circuit Board Protection	RGEF (<16V), RUEF (<30V)	RHEF (<16V)	RXEF (<72V), RKEF (<60V)

Note: This list is not exhaustive. Littelfuse welcomes customer input for additional application ideas for PolySwitch resettable devices.

#### Table R1 — Product Series - Current Rating, Voltage Rating/Typical Resistance

Voltage Rating	RXEF 72V	RKEF 60V	RXEF 60V	RUEF 30V	RGEF 16V	RHEF 16V	RHEF 30V	RUSBF 16V	RUSBF 6V
Hold Current (A)									
0.050	_	_	9.20Ω	_	_	_	_	_	_
0.100	_	_	3.50Ω	_	_	_	_	_	_
0.170	_	_	4.30Ω	_	_	_	_	_	_
0.200	2.290Ω	_	_	_	_	_	_	_	_
0.250	1.600Ω	_	_	_	_	_	_	_	_
0.300	1.110Ω	_	_	_	_	_	_	_	_
0.400	0.710Ω	_	_	_	_	_	_	_	_
0.500	0.640Ω	0.425Ω	_	_	_	_	0.68Ω	_	_
0.550	_	_	_	_	_	_	_	_	_
0.650	0.400Ω	0.350Ω	_	_	_	_	_	_	_
0.700	_	_	_	_	_	_	0.42Ω	_	_
0.750	0.325Ω	0.295Ω	_	_	_	_	_	_	0.140Ω
0.900	0.255Ω	0.255Ω	_	0.095Ω	_	_	_	0.100Ω	_
1.000	_	_	_	_	_	_	0.24Ω	_	_
1.100	0.200Ω	0.225Ω	_	0.075Ω	_	_	_	0.075Ω	_
1.200	_	_	_	_	_	_	_	_	Ω080.0
1.350	0.155Ω	0.165Ω	_	0.060Ω	_	_	_	0.060Ω	_
1.550	_	_	_	_	_	_	_	_	0.058Ω
1.600	0.115Ω	0.150Ω	_	0.050Ω	_	_	_	0.050Ω	_
1.850	0.100Ω	0.106Ω	_	0.045Ω	_	_	_	0.045Ω	_
1.900	_	_	_	_	_	_	_	_	_

#### Radial-Leaded Devices

Table R1 — Product Series - Current Rating, Voltage Rating/Typical Resistance

(Cont'd)

	RXEF	RKEF	RXEF	RUEF	RGEF	RHEF	RHEF	RUSBF	RUSBF
Voltage Rating	72V	60V	60V	30V	16V	16V	30V	16V	6V
Hold Current (A)									
2.000	_	_	_	_	_	0.0610Ω	_	_	_
2.500	0.065Ω	0.063Ω	_	0.030Ω	0.0380Ω	_	_	0.030Ω	_
3.000	0.050Ω	0.040Ω	_	0.035Ω	0.0514Ω	0.0430Ω	_	_	_
3.750	0.040Ω	0.029Ω	_	_	_	_	_	_	_
4.000	_	0.026Ω	_	0.020Ω	0.0300Ω	0.0320Ω	_	_	_
4.500	_	_	_	_	_	0.0290Ω	_	_	_
5.000	_	0.021Ω	_	0.020Ω	0.0192Ω	_	_	_	_
5.500	_	_	_	_	_	0.0200Ω	_	_	_
6.000	_	_	_	0.013Ω	0.0145Ω	0.0175Ω	_	_	_
6.500	_	_	_	_	_	0.0144Ω	_	_	_
7.000	_	_	_	0.013Ω	0.0105Ω	0.0132Ω	_	_	_
7.500	_	_	_	_	_	0.0120Ω	_	_	_
8.000	_	_	_	0.013Ω	0.0086Ω	0.0110Ω	_	_	_
9.000	_	_	_	0.008Ω	0.0070Ω	0.0100Ω	_	_	_
10.00	_	_	_	_	0.0056Ω	0.0083Ω	_	_	_
11.00	_	_	_	_	0.0050Ω	0.0073Ω	_	_	_
12.00	_	_	_	_	0.0046Ω	_	_	_	_
13.00	_	_	_	_	_	0.0055Ω	_	_	_
14.00	_	_	_	_	0.0040Ω	0.0050Ω	_	_	_
15.00	_	_	_	_	_	0.0050Ω	_	_	_

### Table R2 — Thermal Derating [Hold Current (A) at Ambient Temperature (°C)]

Part					Maximum	Ambient Te	mperature				
Number	-40°C	-20°C	0°C	20°C	25°C	40°C	50°C	60°C	70°C	85°C	125°C
RXEF 60V											
RXEF005	0.078	0.068	0.06	0.05	0.048	0.04	0.035	0.032	0.027	0.02	_
RXEF010	0.160	0.140	0.11	0.10	0.096	0.08	0.072	0.067	0.050	0.04	_
RXEF017	0.260	0.230	0.21	0.17	0.160	0.14	0.120	0.110	0.090	0.07	_
RXEF 72V											
RXEF020	0.31	0.27	0.24	0.20	0.19	0.16	0.14	0.13	0.11	0.08	_
RXEF025	0.39	0.34	0.30	0.25	0.24	0.20	0.18	0.16	0.14	0.10	_
RXEF030	0.47	0.41	0.36	0.30	0.29	0.24	0.22	0.20	0.16	0.12	_
RXEF040	0.62	0.54	0.48	0.40	0.38	0.32	0.29	0.25	0.22	0.16	_
RXEF050	0.78	0.68	0.60	0.50	0.48	0.41	0.36	0.32	0.27	0.20	_
RXEF065	1.01	0.88	0.77	0.65	0.62	0.53	0.47	0.41	0.35	0.26	_
RXEF075	1.16	1.02	0.89	0.75	0.72	0.61	0.54	0.47	0.41	0.30	_
RXEF090	1.40	1.22	1.07	0.90	0.86	0.73	0.65	0.57	0.49	0.36	_
RXEF110	1.71	1.50	1.31	1.10	1.06	0.89	0.79	0.69	0.59	0.44	_
RXEF135	2.09	1.84	1.61	1.35	1.30	1.09	0.97	0.85	0.73	0.54	_
RXEF160	2.48	2.18	1.90	1.60	1.54	1.30	1.15	1.01	0.86	0.64	_
RXEF185	2.87	2.52	2.20	1.85	1.78	1.50	1.33	1.17	1.00	0.74	_
RXEF250	3.88	3.40	2.98	2.50	2.40	2.03	1.80	1.58	1.35	1.00	_
RXEF300	4.65	4.08	3.57	3.00	2.88	2.43	2.16	1.89	1.62	1.20	
RXEF375	5.81	5.10	4.46	3.75	3.60	3.04	2.70	2.36	2.03	1.50	_

#### Radial-Leaded Devices

Table R2 — Thermal Derating [Hold Current (A) at Ambient Temperature (°C)] (Cont'd)

Part					Maximum	Ambient Te	mperature				
Number	-40°C	-20°C	0°C	20°C	25°C	40°C	50°C	60°C	70°C	85°C	125°C
RKEF; 60V											
RKEF050	0.73	0.65	0.58	0.50	0.48	0.42	0.38	0.34	0.31	0.26	
	0.73	0.85	0.56			0.42	0.50		0.31	0.26	
RKEF065				0.65	0.63			0.44			
RKEF075	1.09	0.98	0.86	0.75	0.73	0.62	0.58	0.51	0.46	0.39	
RKEF090	1.30	1.17	1.04	0.90	0.87	0.75	0.69	0.61	0.55	0.47	
RKEF110 RKEF135	1.60	1.43	1.27	1.10	1.06	0.92	0.85	0.75	0.67	0.57	
	1.96	1.76	1.55	1.35	1.31	1.12	1.04	0.92	0.83	0.71	
RKEF160	2.32	2.08	1.84	1.60	1.55	1.33	1.23	1.08	0.98	0.83	
RKEF185	2.68	2.41	2.13	1.85	1.79	1.54	1.43	1.26	1.13	0.96	
RKEF250	3.63	3.25	2.88	2.50	2.43	2.08	1.93	1.70	1.52	1.31	
RKEF300	4.35	3.90	3.45	3.00	2.91	2.50	2.30	2.04	1.84	1.55	
RKEF375	5.44	4.88	4.31	3.75	3.64	3.11	2.90	2.54	2.29	1.94	
RKEF400	5.80	5.20	4.60	4.00	3.88	3.32	3.08	2.73	2.45	2.08	
RKEF500	7.25	6.50	5.75	5.00	4.85	4.15	3.85	3.41	3.06	2.59	
RUEF; 30V											
RUEF090	1.31	1.17	1.04	0.90	0.87	0.75	0.69	0.61	0.55	0.47	
RUEF110	1.60	1.43	1.27	1.10	1.07	0.91	0.85	0.75	0.67	0.57	
RUEF135	1.96	1.76	1.55	1.35	1.31	1.12	1.04	0.92	0.82	0.70	
RUEF160	2.32	2.08	1.84	1.60	1.55	1.33	1.23	1.09	0.98	0.83	
RUEF185	2.68	2.41	2.13	1.85	1.79	1.54	1.42	1.26	1.13	0.96	_
RUEF250	3.63	3.25	2.88	2.50	2.43	2.08	1.93	1.70	1.53	1.30	
RUEF300	4.35	3.90	3.45	3.00	2.91	2.49	2.31	2.04	1.83	1.56	
RUEF400	5.80	5.20	4.60	4.00	3.88	3.32	3.08	2.72	2.44	2.08	
RUEF500	7.25	6.50	5.75	5.00	4.85	4.15	3.85	3.40	3.05	2.60	
RUEF600	8.70	7.80	6.90	6.00	5.82	4.98	4.62	4.08	3.66	3.12	_
RUEF700	10.15	9.10	8.05	7.00	6.79	5.81	5.39	4.76	4.27	3.64	_
RUEF800	11.60	10.40	9.20	8.00	7.76	6.64	6.16	5.44	4.88	4.16	_
RUEF900	13.05	11.70	10.35	9.00	8.73	7.47	6.93	6.12	5.49	4.68	
RHEF; 30V - High	h Temperature							,	,		
RHEF050	0.68	0.62	0.56	0.51	0.50	0.44	0.40	0.36	0.34	0.28	0.12
RHEF070	0.95	0.87	0.79	0.72	0.70	0.62	0.56	0.51	0.47	0.39	0.17
RHEF100	1.36	1.24	1.13	1.03	1.00	0.89	0.80	0.73	0.67	0.56	0.24
RUSBF; 16V											
RUSBF090	1.31	1.17	1.04	0.90	0.87	0.75	0.69	0.61	0.55	0.47	_
RUSBF110	1.60	1.43	1.27	1.10	1.07	1.00	0.92	0.75	0.67	0.57	_
RUSBF135	1.96	1.76	1.55	1.35	1.31	1.12	1.04	0.92	0.82	0.70	_
RUSBF160	2.32	2.08	1.84	1.60	1.55	1.33	1.23	1.09	0.98	0.83	_
RUSBF185	2.68	2.41	2.13	1.85	1.79	1.54	1.42	1.26	1.13	0.96	_
RUSBF250	3.63	3.25	2.88	2.50	2.43	2.08	1.93	1.70	1.53	1.30	_
RGEF; 16V											
RGEF250	3.7	3.3	3.0	2.6	2.50	2.2	2.0	1.8	1.6	1.2	_
RGEF300	4.4	4.0	3.6	3.1	3.00	2.6	2.4	2.1	1.9	1.4	_
RGEF400	5.9	5.3	4.8	4.1	4.00	3.5	3.2	2.8	2.5	1.9	_
RGEF500	7.3	6.6	6.0	5.2	5.00	4.4	4.0	3.6	3.1	2.4	_
RGEF600	8.8	8.0	7.2	6.2	6.00	5.2	4.8	4.2	3.8	2.8	
RGEF700	10.3	9.3	8.4	7.3	7.00	6.2	5.6	5.0	4.4	3.3	
RGEF800	11.7	10.7	9.6	8.3	8.00	6.9	6.4	5.6	5.1	3.7	

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#### Radial-Leaded Devices

Table R2 — Thermal Derating [Hold Current (A) at Ambient Temperature (°C)] (Cont'd)

Part					Maximun	n Ambient Te	mperature				
Number	-40°C	-20°C	0°C	20°C	25°C	40°C	50°C	60°C	70°C	85°C	125°C
RGEF; 16V											
RGEF900	13.2	11.9	10.7	9.4	9.00	7.9	7.2	6.4	5.6	4.2	_
RGEF1000	14.7	13.3	12.0	10.3	10.00	8.7	8.0	7.0	6.3	4.7	_
RGEF1100	16.1	14.6	13.1	11.5	11.00	9.7	8.8	7.8	6.9	5.2	_
RGEF1200	17.6	16.0	14.4	12.4	12.00	10.4	9.6	8.4	7.6	5.6	_
RGEF1400	20.5	18.7	16.8	14.5	14.00	12.1	11.2	9.8	8.9	6.5	_
RHEF; 16V - High	n Temperature										
RHEF200	2.71	2.49	2.26	2.06	2.00	1.77	1.60	1.46	1.34	1.11	0.49
RHEF300	4.07	3.74	3.41	3.09	3.00	2.65	2.40	2.21	2.00	1.66	0.74
RHEF400	5.57	5.11	4.65	4.22	4.00	3.62	3.29	3.01	2.73	2.27	1.01
RHEF450	6.10	5.60	5.10	4.60	4.50	4.00	3.60	3.30	3.00	2.50	1.10
RHEF550	7.47	6.86	6.24	5.66	5.50	4.85	4.41	4.04	3.66	3.05	1.36
RHEF600	8.20	7.50	6.80	6.20	6.00	5.30	4.90	4.40	4.00	3.30	1.50
RHEF650	8.80	8.10	7.40	6.70	6.50	5.70	5.30	4.80	4.30	3.60	1.60
RHEF700	9.51	8.73	7.95	7.20	7.00	6.17	5.61	5.15	4.66	3.88	1.73
RHEF750	10.20	9.40	8.60	7.70	7.50	6.60	6.10	5.60	5.00	4.10	1.90
RHEF800	10.87	9.98	9.08	8.23	8.00	7.06	6.41	5.88	5.33	4.43	1.97
RHEF900	12.21	11.19	10.16	9.26	9.00	7.97	7.20	6.56	6.04	5.01	2.19
RHEF1000	13.60	12.50	11.40	10.30	10.00	8.80	8.10	7.40	6.60	5.50	2.50
RHEF1100	14.94	13.72	12.49	11.31	11.00	9.70	8.82	8.09	7.32	6.09	2.71
RHEF1300	17.70	16.30	14.80	13.40	13.00	11.40	10.50	9.60	8.60	7.20	3.30
RHEF1400	19.01	17.46	15.89	14.40	14.00	12.35	11.22	10.29	9.32	7.76	3.45
RHEF1500	20.40	18.80	17.10	15.50	15.00	13.20	12.10	11.10	9.90	8.30	3.80
RUSBF; 6V											
RUSBF075	1.05	0.95	0.85	0.75	0.73	0.65	0.60	0.55	0.50	0.43	_
RUSBF120	1.69	1.52	1.36	1.20	1.16	1.04	0.96	0.88	0.80	0.68	_
RUSBF155	2.17	1.96	1.75	1.55	1.50	1.34	1.24	1.14	1.03	0.88	_

#### Figures R1-R5 — Thermal Derating Curve

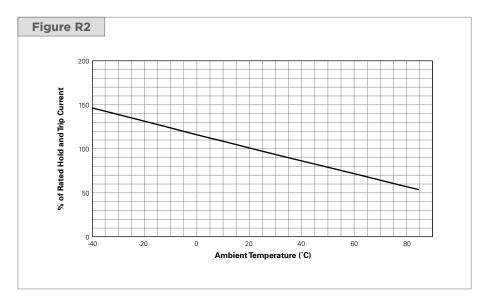
**RXEF** 



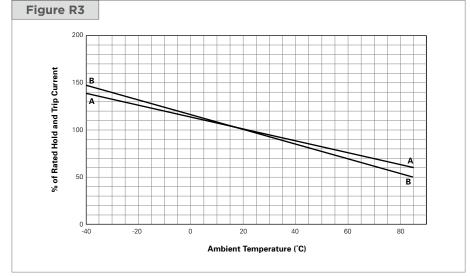
### Figures R1-R5 — Thermal Derating Curve

(Cont'd)

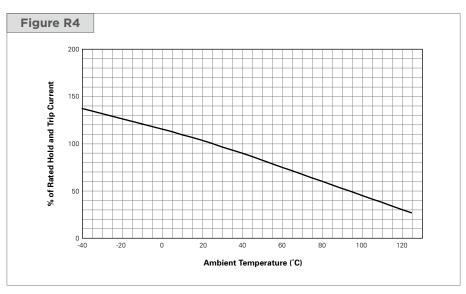
**RKEF** 



- A = RUSBF075, RUSBF120, RUSBF155
- B = RUEF, and all other RUSBF



RHEF

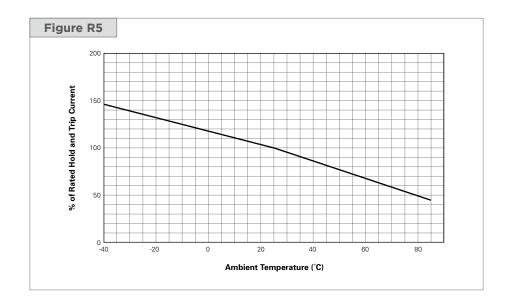


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# Figures R1-R5 — Thermal Derating Curve

(Cont'd)

**RGEF** 



#### Table R3 — Electrical Characteristics

Part	I <sub>H</sub>	I <sub>T</sub>	V	MAX	I <sub>n</sub>	1AX	$P_{\text{D Typ}}$	MaxTim	e-to-trip	R <sub>MIN</sub>	R <sub>MAX</sub>	R <sub>1MAX</sub>	Lead Size
Number	(A)	(A)	(V <sub>DC</sub> )	(V <sub>AC RMS</sub> )	(DC <sub>ADC</sub> )	(AC <sub>ARMS</sub> )	(W)	(A)	(s)	(Ω)	(Ω)	(Ω)	[mm² (AWG)]
RXEF													
60V													
RXEF005	0.05	0.10	60	_	40	_	0.22	0.25	5.0	7.3	11.10	20.00	[0.128mm² (26)]
RXEF010	0.10	0.20	60	_	40	_	0.38	0.50	4.0	2.5	4.50	7.50	[0.205mm <sup>2</sup> (24)]
RXEF017	0.17	0.34	60	_	40	_	0.48	0.85	3.0	3.3	5.21	8.00	[0.205mm <sup>2</sup> (24)]
RXEF													
72V													
RXEF020	0.20	0.40	72	72	40	40	0.41	1.00	2.2	1.83	2.75	4.40	[0.205mm² (24)]
RXEF025	0.25	0.50	72	72	40	40	0.45	1.25	2.5	1.25	1.95	3.00	[0.205mm² (24)]
RXEF030	0.30	0.60	72	72	40	40	0.49	1.50	3.0	0.88	1.33	2.10	[0.205mm² (24)]
RXEF040	0.40	0.80	72	72	40	40	0.56	2.00	3.8	0.55	0.86	1.29	[0.205mm² (24)]
RXEF050	0.50	1.00	72	72	40	40	0.77	2.50	4.0	0.50	0.77	1.17	[0.205mm² (24)]
RXEF065	0.65	1.30	72	72	40	40	0.88	3.25	5.3	0.31	0.48	0.72	[0.205mm² (24)]
RXEF075	0.75	1.50	72	72	40	40	0.92	3.75	6.3	0.25	0.40	0.60	[0.205mm² (24)]
RXEF090	0.90	1.80	72	72	40	40	0.99	4.50	7.2	0.20	0.31	0.47	[0.205mm² (24)]
RXEF110	1.10	2.20	72	72	40	40	1.50	5.50	8.2	0.15	0.25	0.38	[0.520mm <sup>2</sup> (20)]
RXEF135	1.35	2.70	72	72	40	40	1.70	6.75	9.6	0.12	0.19	0.30	[0.520mm² (20)]
RXEF160	1.60	3.20	72	72	40	40	1.90	8.00	11.4	0.09	0.14	0.22	[0.520mm <sup>2</sup> (20)]
RXEF185	1.85	3.70	72	72	40	40	2.10	9.25	12.6	0.08	0.12	0.19	[0.520mm² (20)]
RXEF250	2.50	5.00	72	72	40	40	2.50	12.50	15.6	0.05	0.08	0.13	[0.520mm <sup>2</sup> (20)]
RXEF300	3.00	6.00	72	72	40	40	2.80	15.00	19.8	0.04	0.06	0.10	[0.520mm² (20)]
RXEF375	3.75	7.50	72	72	40	40	3.20	18.75	24.0	0.03	0.05	0.08	[0.520mm² (20)]

#### Table R3 — Electrical Characteristics

Part	I <sub>H</sub>	I <sub>T</sub>	V	MAX	I	ЛАХ	$\mathbf{P}_{\text{D Typ}}$	Max Tim	e-to-trip	$R_{\text{MIN}}$	$R_{\text{MAX}}$	R <sub>1MAX</sub>	Lead Size
Number	(A)	(A)	(V <sub>DC</sub> )	(V <sub>AC RMS</sub> )	(DC <sub>ADC</sub> )	(AC <sub>ARMS</sub> )	(W)	(A)	(s)	(Ω)	(Ω)	(Ω)	[mm² (AWG)]
RKEF; 60V													74
RKEF050	0.50	1.00	60		40		1.00	8.00	0.8	0.320	0.529	0.900	[0.205mm² (24)]
RKEF065	0.65	1.30	60		40		1.25	8.00	1.0	0.250	0.450	0.720	[0.205mm <sup>2</sup> (24)]
RKEF075	0.75	1.50	60	_	40	_	1.40	8.00	1.5	0.200	0.390	0.640	[0.205mm² (24)]
RKEF090	0.90	1.80	60	_	40	_	1.50	8.00	2.0	0.190	0.320	0.520	[0.205mm² (24)]
RKEF110	1.10	2.20	60	_	40	_	2.20	8.00	3.0	0.170	0.280	0.470	[0.520mm² (20)]
RKEF135	1.35	2.70	60		40		2.30	8.00	4.5	0.110	0.220	0.370	[0.520mm² (20)]
RKEF160	1.60	3.20	60	_	40	_	2.40	8.20	9.0	0.100	0.200	0.320	[0.520mm <sup>2</sup> (20)]
RKEF185	1.85	3.70	60	_	40	_	2.60	9.25	12.6	0.060	0.152	0.250	[0.520mm² (20)]
RKEF250	2.50	5.00	60	_	40	_	2.80	12.50	15.6	0.040	0.085	0.140	[0.520mm² (20)]
RKEF300	3.00	6.00	60		40		3.20	15.00	19.8	0.030	0.050	0.080	[0.520mm² (20)]
RKEF375	3.75	7.50	60	_	40	_	3.40	18.75	22.0	0.017	0.040	0.060	[0.520mm² (20)]
RKEF400	4.00	8.00	60	_	40	_	3.70	20.00	24.0	0.014	0.038	0.060	[0.520mm <sup>2</sup> (20)]
RKEF500	5.00	10.00	60	_	40	_	5.00	25.00	28.0	0.012	0.030	0.050	[0.520mm² (20)]
RUEF; 30V													
RUEF090	0.90	1.80	30	30	100	70	0.60	4.50	5.9	0.070	0.120	0.22	[0.205mm² (24)]
RUEF110	1.10	2.20	30	30	100	70	0.70	5.50	6.6	0.070	0.100	0.17	[0.205mm² (24)]
RUEF135	1.35	2.70	30	30	100	70	0.80	6.75	7.3	0.040	0.080	0.13	[0.205mm <sup>2</sup> (24)]
RUEF160	1.60	3.20	30	30	100	70	0.90	8.00	8.0	0.030	0.070	0.11	[0.205mm² (24)]
RUEF185	1.85	3.70	30	30	100	70	1.00	9.25	8.7	0.030	0.060	0.09	[0.205mm² (24)]
RUEF250	2.50	5.00	30	30	100	70	1.20	12.50	10.3	0.020	0.040	0.07	[0.205mm² (24)]
RUEF300	3.00	6.00	30	30	100	70	2.00	15.00	10.8	0.020	0.050	0.08	[0.520mm² (20)]
RUEF400	4.00	8.00	30	30	100	70	2.50	20.00	12.7	0.010	0.030	0.05	[0.520mm² (20)]
RUEF500	5.00	10.00	30	30	100	70	3.00	25.00	14.5	0.010	0.030	0.05	[0.520mm² (20)]
RUEF600	6.00	12.00	30	30	100	70	3.50	30.00	16.0	0.005	0.020	0.04	[0.520mm² (20)]
RUEF700	7.00	14.00	30	30	100	70	3.80	35.00	17.5	0.005	0.020	0.03	[0.520mm² (20)]
RUEF800	8.00	16.00	30	30	100	70	4.00	40.00	18.8	0.005	0.013	0.02	[0.520mm² (20)]
RUEF900	9.00	18.00	30	30	100	70	4.20	45.00	20.0	0.005	0.010	0.02	[0.520mm² (20)]
RHEF*, 30V	- High Te	mperature											
RHEF050	0.5	0.9	30	_	40	_	0.9	2.5	2.5	0.480	0.780	1.10	[0.205mm <sup>2</sup> (24)]
RHEF070	0.7	1.4	30	_	40	_	1.4	3.5	3.2	0.300	0.540	0.80	[0.205mm² (24)]
RHEF100	1.0	1.8	30		40		1.4	5.0	5.2	0.180	0.300	0.43	[0.205mm² (24)]
RUSBF; 16V													
RUSBF090	0.90	1.8	16	_	40	_	0.6	8.0	1.2	0.070	0.120	0.180	[0.205mm² (24)]
RUSBF110	1.10	2.2	16	_	40	_	0.7	8.0	2.3	0.050	0.095	0.140	[0.205mm² (24)]
RUSBF135	1.35	2.7	16	_	40	_	0.8	8.0	4.5	0.040	0.074	0.112	[0.205mm² (24)]
RUSBF160	1.60	3.2	16	_	40		0.9	8.0	9.0	0.030	0.061	0.110	[0.205mm <sup>2</sup> (24)]
RUSBF185	1.85	3.7	16		40		1.0	8.0	10.0	0.030	0.051	0.090	[0.205mm² (24)]
RUSBF250	2.50	5.0	16	_	40	_	1.2	8.0	40.0	0.020	0.036	0.060	[0.205mm² (24)]
RGEF*; 16V													
RGEF250	2.5	4.7	16		100		1.0	12.5	5.0	0.0220	0.0350	0.0530	[0.205mm <sup>2</sup> (24)]
RGEF300	3.0	5.1	16		100		2.3	15.0	1.0	0.0380	0.0645	0.0975	[0.520mm <sup>2</sup> (20)]
RGEF400	4.0	6.8	16		100		2.4	20.0	1.7	0.0210	0.0390	0.0600	[0.520mm <sup>2</sup> (20)]
RGEF500	5.0	8.5	16		100	_	2.6	25.0	2.0	0.0150	0.0240	0.0340	[0.520mm² (20)]
RGEF600	6.0	10.2	16		100	_	2.8	30.0	3.3	0.0100	0.0190	0.0280	[0.520mm² (20)]
RGEF700	7.0	11.9	16		100	_	3.0	35.0	3.5	0.0077	0.0131	0.0200	[0.520mm² (20)]
RGEF800	8.0	13.6	16		100		3.0	40.0	5.0	0.0056	0.0110	0.0175	[0.520mm² (20)]
RGEF900	9.0	15.3	16		100		3.3	45.0	5.5	0.0047	0.0091	0.0135	[0.520mm <sup>2</sup> (20)]
RGEF1000	10.0	17.0	16	_	100	_	3.6	50.0	6.0	0.0040	0.0070	0.0102	[0.520mm² (20)]
RGEF1100	11.0	18.7	16	_	100	_	3.7	55.0	7.0	0.0037	0.0060	0.0089	[0.520mm² (20)]
RGEF1200	12.0	20.4	16		100		4.2	60.0	7.5	0.0033	0.0057	0.0086	[0.823mm <sup>2</sup> (18)]
RGEF1400	14.0	23.8	16		100		4.6	70.0	9.0	0.0026	0.0043	0.0064	[0.823mm² (18)]

#### Radial-Leaded Devices

#### Table R3 — Electrical Characteristics

(Cont'd)

Part	I <sub>H</sub>	I <sub>T</sub>	\	MAX	I,	MAX	$\mathbf{P}_{DTyp}$	Max Tim	e-to-trip	$R_{MIN}$	$R_{MAX}$	R <sub>1MAX</sub>	Lead Size
Number	(A)	(A)	(V <sub>DC</sub> )	(V <sub>AC RMS</sub> )	(DC <sub>ADC</sub> )	(AC <sub>ARMS</sub> )	(W)	(A)	(s)	(Ω)	(Ω)	(Ω)	[mm² (AWG)]
RHEF*; 16V	- High Te	mperature											
RHEF200	2.0	3.8	16	_	100	_	1.4	10.0	4.3	0.0450	0.07400	0.1100	[0.205mm <sup>2</sup> (24)]
RHEF300	3.0	6.0	16	_	100	_	3.0	15.0	5.0	0.0330	0.05300	0.0790	[0.520mm <sup>2</sup> (20)]
RHEF400	4.0	7.5	16	_	100	_	3.3	20.0	5.0	0.0240	0.04000	0.0600	[0.520mm <sup>2</sup> (20)]
RHEF450	4.5	7.8	16	_	100	_	3.6	22.5	3.0	0.0220	0.03600	0.0540	[0.520mm <sup>2</sup> (20)]
RHEF550	5.5	10.0	16	_	100	_	3.5	27.5	6.0	0.0150	0.02500	0.0370	[0.520mm <sup>2</sup> (20)]
RHEF600	6.0	10.8	16	_	100	_	4.1	30.0	5.0	0.0130	0.02150	0.0320	[0.520mm <sup>2</sup> (20)]
RHEF650	6.5	12.0	16	_	100	_	4.1	32.5	5.5	0.0110	0.01750	0.0260	[0.520mm <sup>2</sup> (20)]
RHEF700	7.0	13.0	16	_	100	_	4.0	35.0	7.0	0.0100	0.01640	0.0250	[0.520mm <sup>2</sup> (20)]
RHEF750	7.5	13.1	16	_	100	_	4.5	37.5	7.0	0.0094	0.01530	0.0220	[0.520mm <sup>2</sup> (20)]
RHEF800	8.0	15.0	16	_	100	_	4.2	40.0	8.0	0.0080	0.01350	0.0200	[0.520mm <sup>2</sup> (20)]
RHEF900	9.0	16.5	16	_	100	_	5.0	45.0	10.0	0.0074	0.01200	0.0170	[0.520mm <sup>2</sup> (20)]
RHEF1000	10.0	18.5	16	_	100		5.3	50.0	9.0	0.0062	0.01050	0.0150	[0.520mm <sup>2</sup> (20)]
RHEF1100	11.0	20.0	16	_	100	_	5.5	55.0	11.0	0.0055	0.00900	0.0130	[0.520mm <sup>2</sup> (20)]
RHEF1300	13.0	24.0	16		100		6.9	65.0	13.0	0.0041	0.00690	0.0100	[0.823mm <sup>2</sup> (18)]
RHEF1400	14.0	27.0	16	_	100	_	6.9	70.0	13.0	0.0030	0.00600	0.0090	[0.823mm <sup>2</sup> (18)]
RHEF1500	15.0	28.0	16	_	100		7.0	75.0	20.0	0.0032	0.00613	0.0092	[0.823mm <sup>2</sup> (18)]
RUSBF; 6V													
RUSBF075	0.75	1.30	6	_	40		0.3	8.0	0.4	0.110	0.1750	0.23	[0.205mm <sup>2</sup> (24)]
RUSBF120	1.20	2.00	6	_	40	_	0.6	8.0	0.5	0.070	0.0975	0.14	[0.205mm <sup>2</sup> (24)]
RUSBF155	1.55	2.65	6		40		0.6	7.8	2.2	0.040	0.0705	0.10	[0.205mm <sup>2</sup> (24)]

#### Notes:

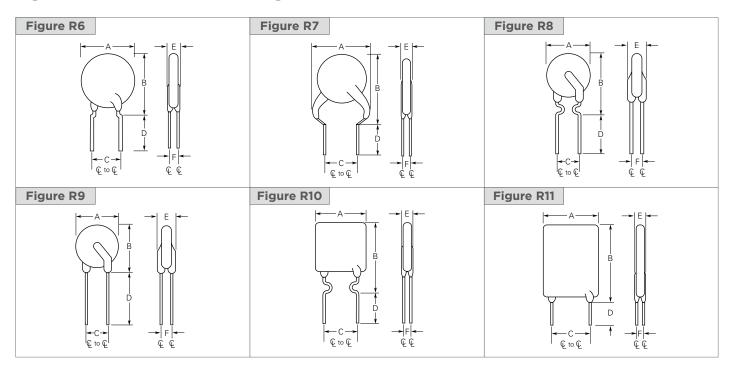
: Hold current: maximum current device will pass without interruption in 20°C still air.
: Trip current: minimum current that will switch the device from low resistance to high resistance in 20°C still air.
: Maximum continuous voltage device can withstand without damage at rated current.
: Maximum fault current device can withstand without damage at rated voltage.
: Power dissipated from device when in the tripped state in 20°C still air.
: Minimum resistance of device as supplied at 20°C unless otherwise specified.

RMMX Maximum resistance of device as supplied at 20°C unless otherwise specified.

R1MAX Maximum resistance of device when measured one hour post reflow (surface-mount device) or one hour post trip (radial-leaded device) at 20°C unless otherwise specified.

\* Electrical characteristics determined at 25°C.

#### Figures R6-R14 — Dimension Figures



#### Radial-Leaded Devices

### Table R4 - Dimensions and Weights

					Dim	ensions	in Millime	eters (Inc	ches)						
Part		Α		В			D	)		E	F	Н	J	Figure	Device Mass (g) (Only for Reference)
Number	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Тур	Тур	Тур		
RKEF; 60V															
RKEF050	_	7.10	_	11.43	4.32	5.84	7.60	_	_	3.56	_	_	_	R10, R13,	0.166
		(0.28)		(0.45)	(0.17)	(0.23)	(0.30)			(0.14)				R14	
RKEF065	_	7.11	_	12.20	4.32	5.84	7.60	_	_	3.56	_	_	_	R10, R13,	0.182
		(0.28)		(0.48)	(0.17)	(0.23)	(0.30)			(0.14)				R14	
RKEF075	_	7.87	_	12.20	4.32	5.84	7.60	_	_	3.56	_	_	_	R10, R13,	0.201
		(0.31)		(0.48)	(0.17)	(0.23)	(0.30)			(0.14)				R14	
RKEF090	_	7.87	_	13.97	4.32	5.84	7.60	_	_	3.56	_	_	_	R10, R13,	0.235
		(0.31)		(0.55)	(0.17)	(0.23)	(0.30)			(0.14)				R14	
RKEF110	_	7.60	_	15.00	4.32	5.84	7.60	_	_	4.10	_	_	_	R10, R13,	0.353
		(0.30)		(0.59)	(0.17)	(0.23)	(0.30)			(0.16)				R14	
RKEF135	_	10.20	_	17.00	4.32	5.84	7.60	_	_	3.81	_	_	_	R11, R13,	0.438
		(0.40)		(0.67)	(0.17)	(0.23)	(0.30)			(0.15)				R14	
RKEF160	_	12.20	_	18.30	4.32	5.84	7.60	_	_	3.81	_	_	_	R11, R13,	0.546
		(0.48)		(0.72)	(0.17)	(0.23)	(0.30)			(0.15)				R14	
RKEF185	_	13.00	_	18.80	4.32	5.84	7.60	_	_	3.81	_	_	_	R11, R13,	0.538
		(0.51)		(0.74)	(0.17)	(0.23)	(0.30)			(0.15)				R14	
RKEF250	_	14.00	_	20.60	4.32	5.84	7.60	_	_	3.00	_	_	_	R11, R13,	0.775
		(0.55)		(0.81)	(0.17)	(0.23)	(0.30)			(0.12)				R14	
RKEF300	_	16.50	_	21.20	4.32	5.84	7.60	_	_	3.00	_	_	_	R11, R13,	0.971
		(0.65)		(0.83)	(0.17)	(0.23)	(0.30)			(0.12)				R14	
RKEF375	_	16.50	_	25.20	9.40	10.90	7.60	_	_	3.00	_	_	_	R11, R13,	1.142
		(0.65)		(0.99)	(0.37)		(0.30)			(0.12)				R14	
RKEF400	_	21.00	_	24.90	9.40	10.90	7.60	_	_	3.00	_	_	_	R11, R13,	1.391
		(0.83)		(0.98)	(0.37)		(0.30)			(0.12)				R14	
RKEF500	_	24.10	_	29.00	9.40	10.90	7.60	_	_	3.00	_	_	_	R11, R13,	1.783
		(0.95)		(1.14)	(0.37)	(0.43)	(0.30)			(0.12)				R14	
RUEF; 30V															
RUEF090	_	7.4	_	12.2	4.3	5.8	7.6	_	_	3.0	_	0.89	8.0	R10, R13,	0.183
		(0.29)		(0.48)	(0.17)	(0.23)	(0.30)			(0.12)		(0.035)	(0.03)	R14	
RUEF110	_	7.4	_	14.2	4.3	5.8	7.6	_	_	3.0	_	0.89	8.0	R10, R13,	0.204
		(0.29)		(0.56)	(0.17)	(0.23)	(0.30)			(0.12)		(0.035)	(0.03)	R14	
RUEF135	_	8.9	_	13.5	4.3	5.8	7.6	_	_	3.0	_	0.89	1.0	R10, R13,	0.255
		(0.35)		(0.53)		(0.23)	(0.30)			(0.12)		(0.035)	(0.04)	R14	
RUEF160	_	8.9	_	15.2	4.3	5.8	7.6	_	_	3.0	_	0.89	1.0	R10, R13,	0.289
		(0.35)		(0.60)	(0.17)	(0.23)	(0.30)			(0.12)		(0.035)	(0.04)	R14	
RUEF185	_	10.2	_	15.7	4.3	5.8	7.6	_	_	3.0	_	0.89	1.0	R10, R13,	0.379
		(0.40)		(0.62)	(0.17)	(0.23)	(0.30)			(0.12)		(0.035)	(0.04)	R14	
RUEF250	_	11.4	_	18.3	4.3	5.8	7.6	_	_	3.0	_	0.89	1.2	R10, R13,	0.493
		(0.45)		(0.72)		(0.23)	(0.30)			(0.12)		(0.035)	(0.05)	R14	
RUEF300	_	11.4	_	16.5	4.3	5.8	7.6	_	_	3.0	_	1.19	1.5	R11, R13,	0.516
DUEE100		(0.45)		(0.65)	(0.17)	(0.23)	(0.30)			(0.12)		(0.047)	(0.06)	R14	
RUEF400	_	14.0	_	19.3	4.3	5.8	7.6	_	_	3.0	_	1.19	1.7	R11, R13,	0.670
DUEEE		(0.55)		(0.76)		(0.23)	(0.30)			(0.12)		(0.047)	(0.07)	R14	
RUEF500	_	14.0	_	24.1	9.4	10.9	7.6	_	_	3.0	_	1.19	1.0	R11, R13,	0.926
DUEEGGG		(0.55)		(0.95)		(0.43)	(0.30)			(0.12)		(0.047)	(0.04)	R14	4.050
RUEF600	_	16.5	_	24.1	9.4	10.9	7.6	_	_	3.0	_	1.19	1.0	R11, R13,	1.352
DUE		(0.65)		(0.95)	(0.37)		(0.30)			(0.12)		(0.047)	(0.04)	R14	1 5 4 0
RUEF700	_	19.1	_	25.9	9.4	10.9	7.6	_	_	3.0	_	1.19	1.2	R11, R13,	1.543
DUEEDOO		(0.75)		(1.02)	(0.37)		(0.30)			(0.12)		(0.047)	(0.05)	R14	1.050
RUEF800	_	21.6	_	28.4	9.4	10.9	7.6	_	_	3.0	_	1.19	1.5	R11, R13,	1.852
DUESCOS		(0.85)		(1.12)	(0.37)		(0.30)			(0.12)		(0.047)	(0.06)	R14	0.40:
RUEF900	_	24.1	_	29.0	9.4	10.9	7.6	_	_	3.0	_	1.19	1.5	R11, R13,	2.104
		(0.95)		(1.14)	(0.37)	(0.43)	(0.30)			(0.12)		(0.047)	(0.06)	R14	

# Figures R6-R14 — Dimension Figures

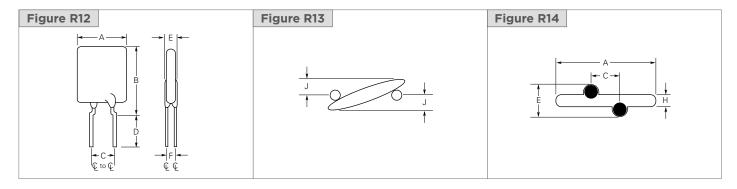


Table R4 - Dimensions and Weights

					Dim	ensions	in Millime	eters (Inc	ches)						
Part		A		В	(	С		)		E	F	Н	J	Figure	Device Mass (g) (Only for Reference)
Number	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Тур	Тур	Тур		(,,
RXEF; 60V															
RXEF005	_	8.0	_	8.3	4.3	5.8	7.6	_	_	3.0	_	1.07	1.0	R7, R13,	0.069
		(0.32)		(0.33)	(0.17)	(0.23)	(0.30)			(0.12)		(0.042)	(0.04)	R14	
RXEF010	_	7.4	_	11.6	4.3	5.8	7.6	_	_	3.0	_	1.07	1.0	R8, R13,	0.128
		(0.29)		(0.46)	(0.17)	(0.23)	(0.30)			(0.12)		(0.042)	(0.04)	R14	
RXEF017	_	7.4	_	12.7	4.3	5.8	7.6	_	_	3.0	_	1.68	1.7	R8, R13,	0.174
		(0.29)		(0.50)	(0.17)	(0.23)	(0.30)			(0.12)		(0.066)	(0.07)	R14	
RXEF; 72V															
RXEF020	_	7.4	_	11.7	4.3	5.8	7.6	_	_	3.0	_	1.17	1.0	R8, R13,	0.119
		(0.29)		(0.46)	(0.17)	(0.23)	(0.30)			(0.12)		(0.046)	(0.04)	R14	
RXEF025	_	7.4	_	12.7	4.3	5.8	7.6	_	_	3.0	_	1.17	1.0	R8, R13,	0.130
		(0.29)		(0.50)	(0.17)	(0.23)	(0.30)			(0.12)		(0.046)	(0.04)	R14	
RXEF030	_	7.4	_	12.7	4.3	5.8	7.6	_	_	3.0	_	1.17	1.0	R8, R13,	0.143
		(0.29)		(0.50)	(0.17)	(0.23)	(0.30)			(0.12)		(0.046)	(0.04)	R14	
RXEF040		7.6		13.5	4.3	5.8	7.6	_		3.0		1.17	1.2	R8, R13,	0.202
		(0.30)		(0.53)	(0.17)	(0.23)	(0.30)			(0.12)		(0.046)	(0.05)	R14	
RXEF050	_	7.9	_	13.7	4.3	5.8	7.6	_	_	3.0	_	1.17	1.2	R8, R13,	0.210
		(0.31)		(0.54)	(0.17)	(0.23)	(0.30)			(0.12)		(0.046)	(0.05)	R14	
RXEF065		9.4		14.5	4.3	5.8	7.6	_		3.0		1.17	1.5	R8, R13,	0.277
		(0.37)		(0.57)	(0.17)	(0.23)	(0.30)			(0.12)		(0.046)	(0.06)	R14	
RXEF075	_	10.2	_	15.2	4.3	5.8	7.6	_	_	3.0	_	1.17	1.5	R8, R13,	0.310
		(0.40)		(0.60)	(0.17)	(0.23)	(0.30)			(0.12)		(0.046)	(0.06)	R14	
RXEF090		11.2	_	15.8	4.3	5.8	7.6	_		3.0		1.17	1.5	R8, R13,	0.365
		(0.44)		(0.62)	(0.17)	(0.23)	(0.30)			(0.12)		(0.046)	(0.06)	R14	
RXEF110	_	12.8	_	17.5	4.3	5.8	7.6	_	_	3.0	_	1.37	1.2	R9, R13,	0.546
		(0.50)		(0.69)	(0.17)	(0.23)	(0.30)			(0.12)		(0.054)	(0.05)	R14	
RXEF135		14.5		19.1	4.3	5.8	7.6	_		3.0		1.37	1.2	R9, R13,	0.653
		(0.57)		(0.75)	(0.17)	(0.23)	(0.30)			(0.12)		(0.054)	(0.05)	R14	
RXEF160	_	16.3	_	20.8	4.3	5.8	7.6	_	_	3.0	_	1.37	1.5	R9, R13,	0.684
		(0.64)		(0.82)	(0.17)	(0.23)	(0.30)			(0.12)		(0.054)	(0.06)	R14	
RXEF185	_	17.5	_	22.4	4.3	5.8	7.6	_	_	3.0	_	1.37	1.5	R9, R13,	0.808
		(0.69)		(0.88)	(0.17)	(0.23)	(0.30)			(0.12)		(0.054)	(0.06)	R14	
RXEF250	_	20.8	_	25.4	9.4	10.9	7.6	_	_	3.0	_	1.37	1.7	R9, R13,	1.139
		(0.82)		(1.00)	(0.37)	(0.43)	(0.30)			(0.12)		(0.054)	(0.07)	R14	
RXEF300	_	23.9	_	28.6	9.4	10.9	7.6	_	_	3.0	_	1.37	1.7	R9, R13,	1.379
		(0.94)		(1.13)	(0.37)	(0.43)	(0.30)			(0.12)		(0.054)	(0.07)	R14	
RXEF375	_	27.2	_	31.8	9.4	10.9	7.6	_	_	3.0	_	1.37	1.7	R9, R13,	1.708
		(1.07)		(1.25)	(0.37)	(0.43)	(0.30)			(0.12)		(0.054)	(0.07)	R14	

#### Radial-Leaded Devices

# Table R4 - Dimensions and Weights

(Cont'd)

					Dim	ensions	in Millim	eters (In	ches)						
Part		A		В	(	С		)		E	F	Н	J	Figure	Device Mass (g) (Only for Reference)
Number	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Тур	Тур	Тур		, , ,
RHEF; 16V - I	High Tem	perature													
RHEF450		10.4	_	15.6	4.3	5.8	7.6	_	_	3.0	1.2	1.24	1.6	R12, R13,	0.605
		(0.41)		(0.61)	(0.17)	(0.23)	(0.30)			(0.12)	(0.05)	(0.049)	(0.06)	R14	
RHEF550		11.2	_	18.9	4.3	5.8	7.6	_	_	3.0	1.2	_	_	R12, R13,	0.704
		(0.44)		(0.74)	(0.17)	(0.23)	(0.30)			(0.12)	(0.05)			R14	
RHEF600	_	11.2	_	21.0	4.3	5.8	7.6	_	_	3.0	1.2	1.24	1.7	R12, R13,	0.792
		(0.44)		(0.83)	(0.17)	(0.23)	(0.30)			(0.12)	(0.05)	(0.049)	(0.067)	R14	
RHEF650	_	12.7	_	22.2	4.3	5.8	7.6	_	_	3.0	1.2	1.24	1.8	R12, R13,	0.952
		(0.50)		(0.88)	(0.17)	(0.23)	(0.30)			(0.12)	(0.05)	(0.049)	(0.07)	R14	
RHEF700	_	14.0	_	21.9	4.3	5.8	7.6	_	_	3.0	1.2	_	_	R12, R13,	0.850
		(0.55)		(0.86)	(0.17)	(0.23)	(0.30)			(0.12)	(0.05)			R14	
RHEF750	_	14.0	_	23.5	4.3	5.8	7.6	_	_	3.0	1.2	1.24	2.0	R12, R13,	1.054
		(0.55)		(0.93)	(0.17)	(0.23)	(0.30)			(0.12)	(0.05)	(0.049)	(0.08)	R14	
RHEF800	_	16.5	_	22.5	4.3	5.8	7.6	_	_	3.0	1.2	_	_	R12, R13,	1.073
		(0.65)		(0.88)	(0.17)	(0.23)	(0.30)			(0.12)	(0.05)			R14	
RHEF900		16.5	_	25.7	4.3	5.8	7.6	_	_	3.0	1.2	_	_	R12, R13,	1.516
		(0.65)		(1.01)	(0.17)	(0.23)	(0.30)			(0.12)	(0.05)			R14	
RHEF1000	_	17.5	_	26.5	9.4	10.9	7.6	_	_	3.0	1.2	1.24	1.5	R12, R13,	1.791
		(0.69)		(1.04)	(0.37)	(0.43)	(0.30)			(0.12)	(0.05)	(0.049)	(0.06)	R14	
RHEF1100	_	21.0	_	26.1	9.4	10.9	7.6	_	_	3.0	1.2	_	_	R12, R13,	1.570
		(0.83)		(1.03)	(0.37)	(0.43)	(0.30)			(0.12)	(0.05)			R14	
RHEF1300	_	23.5	_	28.7	9.4	10.9	7.6	_	_	3.6	1.4	1.45	1.9	R12, R13,	2.257
		(0.925)		(1.13)	(0.37)	(0.43)	(0.30)			(0.14)	(0.06)	(0.057)	(0.084)	R14	
RHEF1400	_	23.5	_	28.6	9.4	10.9	7.6	_	_	3.6	1.4	_	_	R12, R13,	2.051
		(0.925)		(1.13)	(0.37)	(0.43)	(0.30)			(0.14)	(0.06)			R14	
RHEF1500	_	23.5	_	28.7	9.4	10.9	7.6	_	_	3.6	1.4	1.45	1.9	R12, R13,	2.257
		(0.925)		(1.13)	(0.37)	(0.43)	(0.30)			(0.14)	(0.06)	(0.057)	(0.084)	R14	
RUSBF; 6V															
RUSBF075	_	6.9	_	11.4	4.3	5.9	7.6	_	_	3.1		0.91	1.0	R8, R13,	0.123
		(0.27)		(0.45)	(0.17)	(0.23)	(0.30)			(0.12)		(0.036)	(0.04)	R14	
RUSBF120		6.9	_	11.7	4.3	5.9	7.6	_	_	3.1	_	0.91	1.0	R8, R13,	0.111
		(0.27)		(0.46)	(0.17)	(0.23)	(0.30)			(0.12)		(0.036)	(0.04)	R14	
RUSBF155	_	6.9	_	11.7	4.3	5.9	7.6	_	_	3.1	_	0.91	1.0	R8, R13,	0.135
		(0.27)		(0.46)	(0.17)	(0.23)	(0.30)			(0.12)		(0.036)	(0.04)	R14	

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Table R4 — Dimensions and Weights

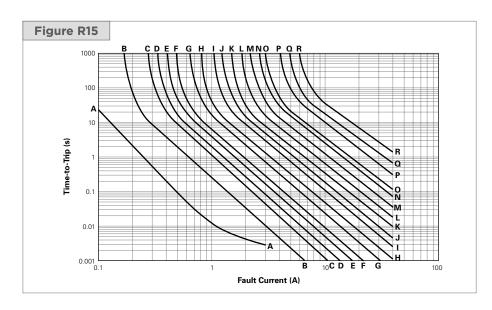
			Dimensions in Millimeters (Inches)												
	A		E			С		)		E	F	н	J	_ Figure	Device Mass (g)
Part Number	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Тур	Тур	Тур		(Only for Reference)
RHEF; 30V - I	High Tem	perature													
RHEF050	_	7.4	_	12.7	4.3	5.8	7.6	_	_	3.0	1.2	_	_	R8, R13,	0.177
		(0.29)		(0.50)	(0.17)	(0.23)	(0.30)			(0.12)	(0.05)			R14	
RHEF070	_	6.9	_	10.8	4.3	5.8	7.6	_	_	3.0	1.2	1.24	1.2	R10, R13,	0.259
		(0.27)		(0.43)	(0.17)	(0.23)	(0.30)			(0.12)	(0.05)	(0.049)	(0.05)	R14	
RHEF100	_	9.7	_	13.6	4.3	5.8	7.6	_	_	3.0	_	_	_	R8, R13,	0.312
		(0.38)		(0.54)	(0.17)	(0.23)	(0.30)			(0.12)				R14	
RUSBF; 16V															
RUSBF090	_	7.4	_	12.2	4.3	5.8	7.6	_	_	3.1	_	0.89	0.8	R10, R13,	0.183
		(0.29)		(0.48)	(0.17)	(0.23)	(0.30)			(0.12)		(0.035)	(0.03)	R14	
RUSBF110		7.4		14.2	4.3	5.8	7.6	_	_	3.0		0.89	0.8	R10, R13,	0.204
		(0.29)		(0.56)	(0.17)	(0.23)	(0.30)			(0.12)		(0.035)	(0.03)	R14	
RUSBF135		8.9		13.5	4.3	5.8	7.6			3.0		0.89	1.0	R10, R13,	0.240
		(0.35)		(0.53)	(0.17)		(0.30)			(0.12)		(0.035)	(0.04)	R14	
RUSBF160		8.9		15.2	4.3	5.8	7.6			3.0		0.89	1.0	R10, R13,	0.300
110021 100		(0.35)		(0.60)	(0.17)		(0.30)			(0.12)		(0.035)	(0.04)	R14	0.000
RUSBF185		10.2		15.7	4.3	5.8	7.6			3.0		0.89	1.0	R10, R13,	0.368
110001 100		(0.40)		(0.62)	(0.17)		(0.30)			(0.12)		(0.035)	(0.04)	R14	0.000
RUSBF250		11.4		18.3	4.3	5.8	7.6			3.0		0.89	1.2	R10, R13,	0.467
110301 230	_	(0.45)	_	(0.72)		(0.23)	(0.30)	_		(0.12)	_	(0.035)	(0.05)	R14	0.407
RGEF; 16V		(0.43)		(0.72)	(0.17)	(0.23)	(0.30)			(0.12)		(0.033)	(0.03)	1114	
RGEF250		8.9		12.8	4.3	5.8	3.18	6.18		3.0	1.2	1.24	1.2	R10, R13,	0.277
NGEF200	_		_						_						0.277
DCEESOO	C 1	(0.35)	6.1	(0.50)	(0.17)		7.6	(0.24)	2.0	(0.12)	(0.05)	(0.049)	(0.05)	R14	0.222
RGEF300	6.1	7.1	6.1	11.0	4.3	5.8		_	2.0	3.0	1.2	1.24	1.2	R11, R13,	0.323
D055400	(0.24)	(0.28)	(0.24)	(0.43)	(0.17)		(0.30)		(0.08)	(0.12)	(0.05)	(0.049)	(0.05)	R14	0.447
RGEF400	7.9	8.9	7.9	12.8	4.3	5.8	7.6	_	2.0	3.0	1.2	1.24	1.4	R11, R13,	0.417
D055500	(0.31)	(0.35)	(0.31)	(0.50)	(0.17)		(0.30)		(0.08)	(0.12)	(0.05)	(0.049)	(0.06)	R14	0.540
RGEF500	9.4	10.4	9.4	14.3	4.3	5.8	7.6	_	2.0	3.0	1.2	1.24	1.6	R11, R13,	0.540
	(0.37)	(0.41)	(0.37)	(0.56)	(0.17)		(0.30)		(0.08)	(0.12)	(0.05)	(0.049)	(0.06)	R14	
RGEF600	9.7	10.7	12.2	17.1	4.3	5.8	7.6	_	2.0	3.0	1.2	1.24	1.6	R11, R13,	0.604
	(0.38)	(0.42)	(0.48)	(0.67)	(0.17)		(0.30)		(80.0)	(0.12)	(0.05)	(0.049)	(0.06)	R14	
RGEF700	10.2	11.2	14.7	19.7	4.3	5.8	7.6	_	2.0	3.0	1.2	1.24	1.7	R11, R13,	0.701
	(0.40)	(0.44)	(0.58)	(0.78)		(0.23)	(0.30)		(80.0)		(0.05)	(0.049)	(0.07)	R14	
RGEF800	11.7	12.7	16.0	20.9	4.3	5.8	7.6	_	2.0	3.0	1.2	1.24	1.8	R11, R13,	0.829
	(0.46)	(0.50)	(0.63)	(0.82)	(0.17)	(0.23)	(0.30)		(0.08)	(0.12)	(0.05)	(0.049)	(0.07)	R14	
RGEF900	13.0	14.0	16.8	21.7	4.3	5.8	7.6	_	2.0	3.0	1.2	1.24	2.0	R11, R13,	0.887
	(0.51)	(0.55)	(0.66)	(0.85)	(0.17)	(0.23)	(0.30)		(0.08)	(0.12)	(0.05)	(0.049)	(0.08)	R14	
RGEF1000	_	16.5	21.1	25.2	4.3	5.8	7.6	_	2.0	3.0	1.2	1.24	2.0	R11, R13,	1.219
		(0.65)	(0.83)	(0.99)	(0.17)	(0.23)	(0.30)		(80.0)	(0.12)	(0.05)	(0.049)	(0.08)	R14	
RGEF1100	16.5	17.5	21.1	26.0	4.3	5.8	7.6	_	2.0	3.0	1.2	1.24	2.4	R11, R13,	1.408
	(0.65)	(0.69)	(0.83)	(1.02)	(0.17)	(0.23)	(0.30)		(0.08)	(0.12)	(0.05)	(0.049)	(0.09)	R14	
RGEF1200	16.4	17.5	22.6	28.0	9.4	10.9	7.6	_	2.3	3.5	1.4	1.45	1.5	R11, R13,	1.650
	(0.65)	(0.69)	(0.89)	(1.10)	(0.37)	(0.43)	(0.30)		(0.09)	(0.14)	(0.06)	(0.057)	(0.06)	R14	
RGEF1400	_	23.5	22.6	27.9	9.4	10.9	7.6	_	2.3	3.5	1.4	1.45	1.9	R11, R13,	2.146
		(0.925)	(0.89)	(1.10)	(0.37)	(0.43)	(0.30)		(0.09)	(0.14)	(0.06)	(0.057)	(0.08)	R14	
RHEF; 16V - I	High Temp	perature													
RHEF200	_	9.4	_	14.4	4.3	5.8	7.6	_	_	3.1	_	_	_	R8, R13,	0.278
		(0.37)		(0.57)	(0.17)	(0.23)	(0.30)			(0.12)				R14	
RHEF300	_	8.8	_	13.8	4.3	5.8	7.6	_	_	3.0	1.2	_	_	R12, R13,	0.433
		(0.35)		(0.55)	(0.17)	(0.23)	(0.30)			(0.12)	(0.05)			R14	
RHEF400		10.0	_	15.0	4.3	5.8	7.6	_		3.0	1.2	1.24	1.6	R12, R13,	0.509
		(0.39)		(0.59)		(0.23)	(0.30)			(0.12)	(0.05)	(0.049)	(0.06)	R14	

#### Radial-Leaded Devices

#### Figures R15-R20 — Typical Time-to-Trip Curves at 20°C

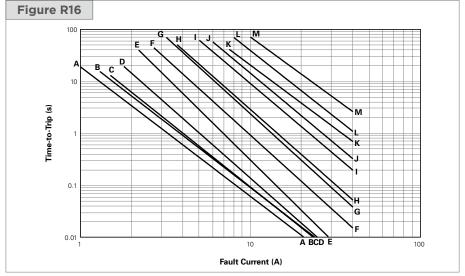
#### **RXEF**

RXEF005 J = RXEF075RXEF010 RXEF090 RXEF017 RXEF110 RXEF020 RXEF135 RXEF160 RXEF030 RXEF185 RXEF040 RXEF250 RXEF050 RXEF300 R = RXEF375RXEF065



#### RKEF

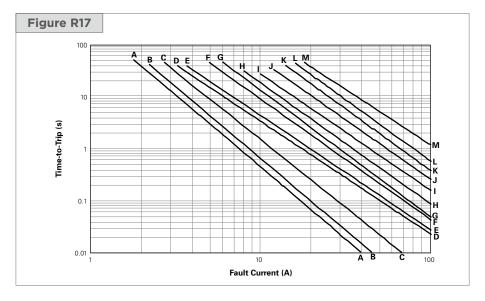
A = RKEF050 J = RKEF300
B = RKEF065 K = RKEF375
C = RKEF075 L = RKEF400
D = RKEF090 M = RKEF500
E = RKEF110
F = RKEF135
G = RKEF160
H = RKEF185



#### **RUEF**

RKEF250

A = RUEF090 H = RUEF400
B = RUEF110 I = RUEF500
C = RUEF135 J = RUEF600
D = RUEF160 K = RUEF700
E = RUEF185 L = RUEF800
F = RUEF250 M = RUEF900
G = RUEF300



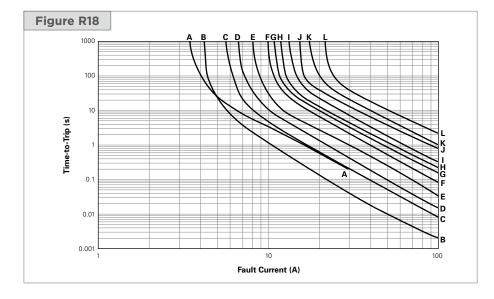
#### Radial-Leaded Devices

#### Figures R15-R20 — Typical Time-to-Trip Curves at 20°C

(Cont'd)

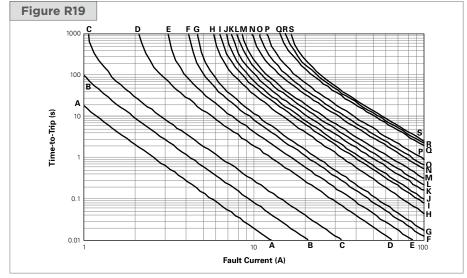
#### RGEF (data at 25°C)

A = RGEF250 G = RGEF800
B = RGEF300 H = RGEF900
C = RGEF400 I = RGEF1000
D = RGEF500 J = RGEF1100
E = RGEF600 K = RGEF1200
F = RGEF700 L = RGEF140



#### RHEF (data at 25°C)

RHEF050 K = RHEF700RHEF070 RHEF750 RHEF100 RHEF800 RHEF200 RHEF900 RHEF300 RHEF1000 RHEF400 RHEF1100 RHEF450 RHEF1300 RHEF1400 RHEF550 S = RHEF1500RHEF600



#### **RUSBF**

RHEF650

A = RUSBF075

B = RUSBF090

C = RUSBF110

D = RUSBF120

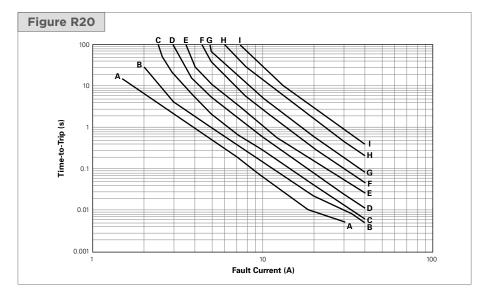
E = RUSBF135

F = RUSBF155

G = RUSBF160

H = RUSBF185

I = RUSBF250



#### Radial-Leaded Devices

# Table R5 — Physical Characteristics and Environmental Specifications

RXEF					
Physical Characteristic	:s				
Lead Material	RXEF005	: Tin-plated Nickel-copper Alloy, 0.128mm² (26AWG), ø0.40mm (0.016in)			
	RXEF010	: Tin-plated Nickel-copper Alloy, 0.205mm² (24AWG), ø0.51mm (0.020in)			
	RXEF017 to 040	: Tin-plated Copper-clad Steel, 0.205mm² (24AWG), ø0.51mm (0.020in)			
	RXEF050 to 090	:Tin-plated Copper, 0.205mm² (24AWG), ø0.51mm (0.020in)			
	RXEF110 to 375	: Tin-plated Copper, 0.52mm² (20AWG), ø0.81mm (0.032in)			
Soldering Characteristics	Solderability per ANSI/J-STD-002 Category 3				
	RXEF005, RXEF01	0 Meet ANSI/J-STD-002 Category 1			
Solder Heat Withstand	RXEF005- RXEF02	25: per IEC-STD 68-2-20, Test Tb, Method 1a, Condition a;			
	Can Withstand 5s at 260°C ±5°C				
	All Other Sizes	: per IEC-STD 68-2-20, TestTb, Method 1a, Condition b;			
	Can Withstand 10:	s at 260°C ±5°C			
Insulating Material	Cured, Flame-retardant Epoxy Polymer; Meets UL 94V-0				
Operation Temperature	-40°C~85°C				

Note: Devices are not designed to be placed through a reflow process.

Environmental Specifications				
Test	Conditions	Resistance Change		
Passive Aging	-40°C, 1000 hrs	±5%		
	85°C, 1000 hrs	±5%		
Humidity Aging	85°C, 85%RH, 1000 hrs	±10%		
Thermal Shock	85°C, -40°C (10 Times)	±10%		
Solvent Resistance	MIL-STD-202, Method 215F	No Change		

RKEF					
Physical Characteristic	cs				
Lead Material	RKEF050 to 090 : Tin-plated Copper, 0.205mm² (24AWG), ø0.51mm (0.020in)				
	RKEF110 to 500 : Tin-plated Copper, 0.52mm² (20AWG), ø0.81mm (0.032in)				
Soldering Characteristics	Solderability per ANSI/J-STD-002 Category 3				
Solder Heat Withstand	RKEF050-RKEF185: per IEC-STD 68-2-20, Test Tb, Method 1a, Condition a;				
	Can Withstand 5s at 260°C ±5°C				
	All Other Sizes : per IEC-STD 68-2-20, Test Tb, Method 1a, Condition b;				
	RKEF Can Withstand 10s at 260°C ±5°C				
Insulating Material	Cured, Flame-retardant Epoxy Polymer; Meets UL 94V-0				
Operation Temperature	-40°C~85°C				

Note: Devices are not designed to be placed through a reflow process.

Environmental Specifications				
Test	Conditions	Resistance Change		
Passive Aging	-40°C, 1000 hrs	±5%		
	85°C, 1000 hrs	±5%		
Humidity Aging	85°C, 85%RH, 1000 hrs	±10%		
Thermal Shock	85°C, -40°C (10 Times)	±10%		
Solvent Resistance	MIL-STD-202, Method 215F	No Change		

#### Radial-Leaded Devices

### Table R5 — Physical Characteristics and Environmental Specifications

(Cont'd)

RUEF					
Physical Characteristics					
Lead Material	RUEF090 to RUEF250: Tin-plated Copper-clad Steel, 0.205mm² (24AWG)				
	RUEF300 to RUEF900: Tin-plated Copper, 0.52mm² (20AWG), ø0.81mm (0.032in)				
Soldering Characteristics	Solderability per ANSI/J-STD-002 Category 3				
Solder Heat Withstand	per IEC-STD 68-2-20, Test Tb, Method1A, Condition B, Can Withstand 10s at 260°C ±5°C				
Insulating Material	Cured, Flame-retardant Epoxy Polymer; Meets UL 94V-0				
Operation Temperature	-40°C~85°C				

Note: Devices are not designed to be placed through a reflow process.

Environmental Specifications				
Test	Conditions	Resistance Change		
Passive Aging	70°C, 1000 hrs	±5%		
	85°C, 1000 hrs	±5%		
Humidity Aging	85°C, 85%RH, 1000 hrs	±5%		
Thermal Shock	85°C, -40°C (10 times)	±5%		
Solvent Resistance	MIL-STD-202, Method 215F	No Change		

RUSBF		
Physical Characteristic	s	
Lead Material	RUSBF075	: Tin-plated Nickel-copper Alloy, 0.205mm² (24AWG), ø0.51mm/0.020in
	RUSBF090 to RUS	SBF250: Tin-plated Copper-clad Steel, 0.205mm² (24AWG), ø0.51mm/0.020in
Soldering Characteristics	Solderability per A	NSI/J-STD-002 Category 3 Except
	RUSBF075 Meet	ANSI/J-STD-002 Category 1
Solder Heat Withstand	RUSBF120: per IE	C-STD 68-2-20, Test Tb, Method 1A, Condition A; Can Withstand 5s at 260°C ±5°C
	All Others : per IE	C-STD 68-2-20, Test Tb, Method 1A, Condition B; Can Withstand 10s at 260°C ±5°C
Insulating Material	Cured, Flame-reta	ordant Epoxy Polymer; Meets UL 94V-0
Operation Temperature	-40°C~85°C	

Note: Devices are not designed to be placed through a reflow process.

Environmental Specifications				
Test	Conditions	Resistance Change		
Passive Aging	70°C, 1000 hrs	±5%		
	85°C, 1000 hrs	±5%		
Humidity Aging	85°C, 85%RH, 1000 hrs	±5%		
Thermal Shock	85°C, -40°C (10 Times)	±5%		
Solvent Resistance	MIL-STD-202, Method 215F	No change		

#### Radial-Leaded Devices

#### Table R5 — Physical Characteristics and Environmental Specifications

(Cont'd)

RGEF					
<b>Physical Characteristic</b>	s				
Lead Material	RGEF250	: Tin-plated Copper-clad Steel, 0.205mm² (24AWG), ø0.51mm/0.020in			
	RGEF300 to RGEF1100 : Tin-plated Copper, 0.52mm² (20AWG), ø0.81mm/0.032in				
	RGEF1200 to RGEF140	0: Tin-plated Copper, 0.82mm² (18AWG), ø1.0mm/0.04in			
Soldering Characteristics	Solderability per ANSI/J-STD-002 Category 3				
Solder Heat Withstand	RGEF250 and RGEF400	0 : per IEC 68-2-20, Test Tb, Method 1a, Condition a;			
	can withstand 5s at 260°C ±5°C				
	RGEF500 to RGEF1400 : per IEC 68-2-20, Test Tb, Method 1a, Condition b;				
	can withstand 10s at 20	60°C ±5°C			
Insulating Material	Cured, Flame-retardant	Epoxy Polymer; Meets UL 94V-0			
Operation Temperature	-40°C~85°C				

Note: Devices are not designed to be placed through a reflow process.

Environmental Specifications				
Test	Conditions	Resistance Change		
Passive Aging	-40°C, 1000 hrs	±5%		
	85°C, 1000 hrs	±5%		
Humidity Aging	85°C, 85%RH, 1000 hrs	±5%		
Thermal Shock	85°C, -40°C (10 Times)	±5%		
Solvent Resistance	MIL-STD-202, Method 215F	No Change		

RHEF					
Physical Characteristics					
Lead Material	RHEF050 to RHEF200 : Tin-plated Copper-clad Steel, 0.205mm² (24AWG), ø0.51mm/0.020in				
	RHEF300 to RHEF1100 : Tin-plated Copper, 0.52mm² (20AWG), ø0.81mm/0.032in				
	RHEF1300 to RHEF1500: Tin-plated Copper, 0.82mm² (18AWG), ø1.0mm/0.04in				
Soldering Characteristics	Solderability per ANSI/J-STD-002 Category 3				
Solder Heat Withstand	per IEC 68-2-20, Test Tb, Method 1A, Condition B; Can Wthstand 10s at 260°C ±5°C				
Insulating Material	Cured, Flame-retardant Epoxy Polymer; Meets UL 94V-0				
Operation Temperature	-40°C~125°C				

Note: Devices are not designed to be placed through a reflow process.

Environmental Specifications					
Test	Conditions	Resistance Change			
Passive Aging	70°C, 1000 hrs	±5%			
	85°C, 1000 hrs	±5%			
Humidity Aging	85°C, 85%RH, 1000 hrs	±5%			
Thermal Shock	125°C, -40°C (10 Times)	±5%			
Solvent Resistance	MIL-STD-202, Method 215F	No Change			

#### **Storage Conditions**

Storage Conditions 40°C max, 70% RH max; devices should remain in original sealed bags prior to use.

Devices may not meet specified values if these storage conditions are exceeded.

# Table R6 — Packaging and Marking Information

Part Number	Bag Quantity	Tape and Reel Quantity	Ammo Pack Quantity	Standard Package Quantity	Part Marking	Agency Recognition
RXEF 60V						
RXEF005	500	_	_	10,000	_	UL, CSA, TÜV, CQC
RXEF005-2	_	3,000	_	15,000	_	UL, CSA, TÜV, CQC
RXEF005-AP	_	_	2,000	10,000	_	UL, CSA, TÜV, CQC
RXEF010	500	_	_	10,000	X10	UL, CSA, TÜV, CQC
RXEF010-2	_	3,000	_	15,000	X10	UL, CSA, TÜV, CQC
RXEF010-AP	_	_	2,000	10,000	X10	UL, CSA, TÜV, CQC
RXEF017	500	_	_	10,000	X17	UL, CSA, TÜV, CQC
RXEF017-2	_	2,500	_	12,500	X17	UL, CSA, TÜV, CQC
RXEF017-AP	_	_	2,000	10,000	X17	UL, CSA, TÜV, CQC
RXEF 72V						
RXEF020	500	_	_	10,000	X20	UL, CSA, TÜV, CQC
RXEF020-2	_	3,000	_	15,000	X20	UL, CSA, TÜV, CQC
RXEF020-AP	_	_	2,000	10,000	X20	UL, CSA, TÜV, CQC
RXEF025	500			10,000	X25	UL, CSA, TÜV, CQC
RXEF025-2	_	3,000	_	15,000	X25	UL, CSA, TÜV, CQC
RXEF025-AP	_		2,000	10,000	X25	UL, CSA, TÜV, CQC
RXEF030	500			10,000	X30	UL, CSA, TÜV, CQC
RXEF030-2		3,000	_	15,000	X30	UL, CSA, TÜV, CQC
RXEF030-AP			2,000	10,000	X30	UL, CSA, TÜV, CQC
XXEF040	500			10,000	X40	UL, CSA, TÜV, CQC
XEF040-2		3,000		15,000	X40	UL, CSA, TÜV, CQC
XEF040-AP			2,000	10,000	X40	UL, CSA, TÜV, CQC
XXEF050	500			10,000	X50	UL, CSA, TÜV, CQC
RXEF050-2		3,000		15,000	X50	UL, CSA, TÜV, CQC
RXEF050-AP		3,000	2,000	10,000	X50	UL, CSA, TÜV, CQC
RXEF065	500			10,000	X65	UL, CSA, TÜV, CQC
RXEF065-2		3,000		15,000	X65	UL, CSA, TÜV, CQC
RXEF065-AP			2,000	10,000	X65	UL, CSA, TÜV, CQC
					X75	
RXEF075 RXEF075-2	500		<u> </u>	10,000		UL, CSA, TÜV, CQC UL, CSA, TÜV, CQC
		3,000	2.000	15,000	X75	
RXEF075-AP	<u> </u>		2,000	10,000	X75	UL, CSA, TÜV, CQC
RXEF090	500	2,000		10,000	X90	UL, CSA, TÜV, CQC
RXEF090-2	_	3,000		15,000	X90	UL, CSA, TÜV, CQC
RXEF090-AP			2,000	10,000	X90	UL, CSA, TÜV, CQC
RXEF110	500			10,000	X110	UL, CSA, TÜV, CQC
RXEF110-2		1,500		7,500	X110	UL, CSA, TÜV, CQC
RXEF110-AP			1,000	5,000	X110	UL, CSA, TÜV, CQC
RXEF135	500			10,000	X135	UL, CSA, TÜV, CQC
RXEF135-2		1,500		7,500	X135	UL, CSA, TÜV, CQC
RXEF135-AP	<del>-</del>		1,000	5,000	X135	UL, CSA, TÜV, CQC
RXEF160	500			10,000	X160	UL, CSA, TÜV, CQC
RXEF160-2		1,500		7,500	X160	UL, CSA, TÜV, CQC
RXEF160-AP	_		1,000	5,000	X160	UL, CSA, TÜV, CQC
RXEF185	500		_	10,000	X185	UL, CSA, TÜV, CQC
RXEF185-2		1,500	_	7,500	X185	UL, CSA, TÜV, CQC
RXEF185-AP			1,000	5,000	X185	UL, CSA, TÜV, CQC
RXEF250	250			5,000	X250	UL, CSA, TÜV, CQC
RXEF250-2		1,000		5,000	X250	UL, CSA, TÜV, CQC
RXEF250-AP	_	_	1,000	5,000	X250	UL, CSA, TÜV, CQC

#### Radial-Leaded Devices

# Table R6 — Packaging and Marking Information

Part Number	Bag Quantity	Tape and Reel Quantity	Ammo Pack Quantity	Standard Package Quantity	Part Marking	Agency Recognition
RXEF						
72V						
RXEF300	250	_	_	5,000	X300	UL, CSA, TÜV, CQC
RXEF300-2	_	1,000	_	5,000	X300	UL, CSA, TÜV, CQC
RXEF300-AP	_	_	1,000	5,000	X300	UL, CSA, TÜV, CQC
RXEF375	250	_	_	5,000	X375	UL, CSA, TÜV, CQC
RKEF						
60V						
RKEF050	500	_	_	10,000	K50	UL, CSA, TÜV
RKEF065	500	_	_	10,000	K65	UL, CSA, TÜV
RKEF075	500	_	_	10,000	K75	UL, CSA, TÜV
RKEF090	500	_	_	10,000	K90	UL, CSA, TÜV
RKEF110	500	_	_	10,000	K110	UL, CSA, TÜV
RKEF135	500	_	_	10,000	K135	UL, CSA, TÜV
RKEF160	500	_	_	10,000	K160	UL, CSA, TÜV
RKEF185	500	_	_	10,000	K185	UL, CSA, TÜV
RKEF250	500	_	_	10,000	K250	UL, CSA, TÜV
RKEF300	250	_	_	5,000	K300	UL, CSA, TÜV
RKEF375	250		_	5,000	K375	UL, CSA, TÜV
RKEF400	250	_	_	5,000	K400	UL, CSA, TÜV
RKEF500	250	_	_	5,000	K500	UL, CSA, TÜV
RUEF						
80V						
RUEF090	500	_	_	10,000	U90	UL, CSA, TÜV, CQC
RUEF090-2	_	3,000	_	15,000	U90	UL, CSA, TÜV, CQC
RUEF090-AP	_	_	2,000	10,000	U90	UL, CSA, TÜV, CQC
RUEF110	500		_	10,000	U110	UL, CSA, TÜV, CQC
RUEF110-2		3,000	_	15,000	U110	UL, CSA, TÜV, CQC
RUEF110-AP		_	2,000	10,000	U110	UL, CSA, TÜV, CQC
RUEF135	500	_	_	10,000	U135	UL, CSA, TÜV, CQC
RUEF135-2	_	3,000	_	15,000	U135	UL, CSA, TÜV, CQC
RUEF135-AP		_	2,000	10,000	U135	UL, CSA, TÜV, CQC
RUEF160	500	_	_	10,000	U160	UL, CSA, TÜV, CQC
RUEF160-2	_	3,000	_	15,000	U160	UL, CSA, TÜV, CQC
RUEF160-AP	_	<u> </u>	2,000	10,000	U160	UL, CSA, TÜV, CQC
RUEF185	500	_	<u> </u>	10,000	U185	UL, CSA, TÜV, CQC
RUEF185-2	_	3,000	_	15,000	U185	UL, CSA, TÜV, CQC
RUEF185-AP	_		2,000	10,000	U185	UL, CSA, TÜV, CQC
RUEF250	500	_		10,000	U250	UL, CSA, TÜV, CQC
RUEF250-2	_	3,000		15,000	U250	UL, CSA, TÜV, CQC
RUEF250-AP			2,000	10,000	U250	UL, CSA, TÜV, CQC
RUEF300	500			10,000	U300	UL, CSA, TÜV, CQC
RUEF300-2		2,500	_	12,500	U300	UL, CSA, TÜV, CQC
RUEF300-AP			1,000	5,000	U300	UL, CSA, TÜV, CQC
RUEF400	500		-	10,000	U400	UL, CSA, TÜV, CQC
RUEF400-2		1,500		7,500	U400	UL, CSA, TÜV, CQC
RUEF400-AP			1,000	5,000	U400	UL, CSA, TÜV, CQC
RUEF500	250		-	5,000	U500	UL, CSA, TÜV, CQC
RUEF500-2		1,500	1,000	7,500	U500	UL, CSA, TÜV, CQC
RUEF500-AP	250		1,000	5,000	U500	UL, CSA, TÜV, CQC
RUEF600	250	_	_	5,000	U600	UL, CSA, TÜV, CQC

# Table R6 — Packaging and Marking Information

			Ammo Pack Quantity	Standard Package Quantity	Part Marking	Agency Recognition
RUEF						
30V						
RUEF600-AP	_	_	1,000	5,000	U600	UL, CSA, TÜV, CQC
RUEF700	250	_	_	5,000	U700	UL, CSA, TÜV, CQC
RUEF700-2	_	1,000	_	5,000	U700	UL, CSA, TÜV, CQC
RUEF700-AP	_	_	1,000	5,000	U700	UL, CSA, TÜV, CQC
RUEF800	250	_	_	5,000	U800	UL, CSA, TÜV, CQC
RUEF800-2	_	1,000	_	5,000	U800	UL, CSA, TÜV, CQC
RUEF800-AP	_	_	1,000	5,000	U800	UL, CSA, TÜV, CQC
RUEF900	250	_	_	5,000	U900	UL, CSA, TÜV, CQC
RUEF900-2	_	1,000	_	4,000	U900	UL, CSA, TÜV, CQC
RUEF900-AP	_	_	1,000	4,000	U900	UL, CSA, TÜV, CQC
RHEF						
30V - High Temperature						
RHEF050	500	_	_	10,000	H0.5	UL, CSA, TÜV
RHEF050-2	_	2,500	_	12,500	H0.5	UL, CSA, TÜV
RHEF070	500	_	_	10,000	H0.7	UL, CSA, TÜV
RHEF070-2	_	2,500	_	12,500	H0.7	UL, CSA, TÜV
RHEF100	500	_	_	10,000	H1	UL, CSA, TÜV
RHEF100-2	_	2,500	_	12,500	H1	UL, CSA, TÜV
RUSBF						
16V						
RUSBF090	500	_	_	10,000	R90	UL, CSA, TÜV
RUSBF090-2	_	3,000	_	15,000	R90	UL, CSA, TÜV
RUSBF090-AP	_	_	2,000	10,000	R90	UL, CSA, TÜV
RUSBF110	500	_	_	10,000	R110	UL, CSA, TÜV
RUSBF110-2	_	3,000	_	15,000	R110	UL, CSA, TÜV
RUSBF110-AP	_	_	2,000	10,000	R110	UL, CSA, TÜV
RUSBF135	500	_	_	10,000	R135	UL, CSA, TÜV
RUSBF135-2	_	3,000	_	15,000	R135	UL, CSA, TÜV
RUSBF135-AP	_	_	2,000	10,000	R135	UL, CSA, TÜV
RUSBF160	500		_	10,000	R160	UL, CSA, TÜV
RUSBF160-2	_	3,000	_	15,000	R160	UL, CSA, TÜV
RUSBF160-AP			2,000	10,000	R160	UL, CSA, TÜV
RUSBF185	500		<u> </u>	10,000	R185	UL, CSA, TÜV
RUSBF185-2	_	3,000		15,000	R185	UL, CSA, TÜV
RUSBF185-AP		_	2,000	10,000	R185	UL, CSA, TÜV
RUSBF250	500		_	10,000	R250	UL, CSA, TÜV
RUSBF250-2		3,000		15,000	R250	UL, CSA, TÜV
RUSBF250-AP			2,000	10,000	R250	UL, CSA, TÜV
RGEF			_,-00	,00	50	==, ==, , , , = v
16V						
RGEF250	500			10,000	G2.5	UL, CSA, TÜV
RGEF250-2		3,000		15,000	G2.5	UL, CSA, TÜV
RGEF250-AP			2,000	10,000	G2.5	UL, CSA, TÜV
RGEF300	500			10,000	G2.5	UL, CSA, TÜV
RGEF300-2		2,500		12,500	G3	UL, CSA, TÜV
RGEF300-AP	— E00		2,000	10,000	G3	UL, CSA, TÜV
RGEF400	500	2.500		10,000	G4	UL, CSA, TÜV
RGEF400-2		2,500		12,500	G4	UL, CSA, TÜV
RGEF400-AP	_	_	2,000	10,000	G4	UL, CSA, TÜV

# Table R6 — Packaging and Marking Information

Part Number	Bag Quantity	Tape and Reel Quantity	Ammo Pack Quantity	Standard Package Quantity	Part Marking	Agency Recognition
RGEF						
16V						
RGEF500-2	_	2,000	_	10,000	G5	UL, CSA, TÜV
RGEF500-AP	_	_	2,000	10,000	G5	UL, CSA, TÜV
RGEF600	500	_	_	10,000	G6	UL, CSA, TÜV
RGEF600-2	_	2,000	_	10,000	G6	UL, CSA, TÜV
RGEF600-AP	_	_	2,000	10,000	G6	UL, CSA, TÜV
RGEF700	500	_	_	10,000	G7	UL, CSA, TÜV
RGEF700-2	_	1,500	_	7,500	G7	UL, CSA, TÜV
RGEF700-AP			1,500	7,500	G7	UL, CSA, TÜV
RGEF800	500	_	_	10,000	G8	UL, CSA, TÜV
RGEF800-2	_	1,500	_	7,500	G8	UL, CSA, TÜV
RGEF800-AP	_		1,500	7,500	G8	UL, CSA, TÜV
RGEF900	500			10,000	G9	UL, CSA, TÜV
RGEF900-2		1,000	_	5,000	G9	UL, CSA, TÜV
RGEF900-AP			1,000	5,000	G9	UL, CSA, TÜV
RGEF1000	250			5,000	G10	UL, CSA, TÜV
RGEF1000-2		1,000		5,000	G10	UL, CSA, TÜV
RGEF1000-AP			1,000	5,000	G10	UL, CSA, TÜV
RGEF1100	250			5,000	G11	UL, CSA, TÜV
RGEF1100-2	_	1,000		5,000	G11	UL, CSA, TÜV
RGEF1100-AP		— I,000	1,000	5,000	G11	UL, CSA, TÜV
RGEF1200	250			5,000	G12	UL, CSA, TÜV
RGEF1200-2		1,000		5,000	G12	UL, CSA, TÜV
RGEF1200-AP		— I,000	1,000	5,000	G12	UL, CSA, TÜV
RGEF1400	250		— —	5,000	G14	UL, CSA, TÜV
		1,000				UL, CSA, TÜV
RGEF1400-2		1,000	1,000	5,000	G14	UL, CSA, TÜV
RGEF1400-AP			1,000	5,000	G14	UL, CSA, TUV
RHEF						
16V - High Temperature						
RHEF200	500		_	10,000	H2	UL, CSA, TÜV
RHEF200-2		2,500		12,500	H2	UL, CSA, TÜV
RHEF200-AP			2,500	12,500	H2	UL, CSA, TÜV
RHEF300	500		_	10,000	H3	UL, CSA, TÜV
RHEF300-2		2,000		10,000	H3	UL, CSA, TÜV
RHEF300-AP			2,000	10,000	H3	UL, CSA, TÜV
RHEF400	500			10,000	H4	UL, CSA, TÜV
RHEF400-2		1,500		7,500	H4	UL, CSA, TÜV
RHEF400-AP	_		1,500	7,500	H4	UL, CSA, TÜV
RHEF450	500	_	_	10,000	H4.5	UL, CSA, TÜV
RHEF450-2	_	1,500	_	7,500	H4.5	UL, CSA, TÜV
RHEF450-AP	_	_	1,500	7,500	H4.5	UL, CSA, TÜV
RHEF550	500	_	_	10,000	H5.5	UL, CSA, TÜV
HEF550-2	_	2,000	_	10,000	H5.5	UL, CSA, TÜV
HEF550-AP	_	_	2,000	10,000	H5.5	UL, CSA, TÜV
RHEF600	500	_	_	10,000	H6	UL, CSA, TÜV
RHEF600-2	_	2,000	_	10,000	H6	UL, CSA, TÜV
RHEF600-AP	_	_	2,000	10,000	H6	UL, CSA, TÜV
RHEF650	500	_	_	10,000	H6.5	UL, CSA, TÜV
RHEF650-2	_	1,500	_	7,500	H6.5	UL, CSA, TÜV
RHEF650-AP	_	_	1,500	7,500	H6.5	UL, CSA, TÜV
RHEF700	500		_	10,000	H7	UL, CSA, TÜV

# Table R6 — Packaging and Marking Information

(Cont'd)

Part Number	Bag Quantity	Tape and Reel Quantity	Ammo Pack Quantity	Standard Package Quantity	Part Marking	Agency Recognition
RHEF						
16V - High Temperate	ure					
RHEF700-2	_	1,500	_	7,500	H7	UL, CSA, TÜV
RHEF700-AP	_	_	1,500	7,500	H7	UL, CSA, TÜV
RHEF750	500	_	_	10,000	H7.5	UL, CSA, TÜV
RHEF750-2	_	1,000	_	5,000	H7.5	UL, CSA, TÜV
RHEF750-AP	_	_	1,000	5,000	H7.5	UL, CSA, TÜV
RHEF800	500	_	_	10,000	H8	UL, CSA, TÜV
RHEF800-2	_	1,000	_	5,000	H8	UL, CSA, TÜV
RHEF800-AP	_	_	1,000	5,000	H8	UL, CSA, TÜV
RHEF900	250	_	_	5,000	Н9	UL, CSA, TÜV
RHEF900-2	_	1,000	_	5,000	Н9	UL, CSA, TÜV
RHEF900-AP	_	_	1,000	5,000	Н9	UL, CSA, TÜV
RHEF1000	250	_	_	5,000	H10	UL, CSA, TÜV
RHEF1000-2	_	1,000	_	5,000	H10	UL, CSA, TÜV
RHEF1000-AP	_	_	1,000	5,000	H10	UL, CSA, TÜV
RHEF1100	250	_	_	5,000	H11	UL, CSA, TÜV
RHEF1100-2	_	1,000	_	5,000	H11	UL, CSA, TÜV
RHEF1100-AP	_	_	1,000	5,000	H11	UL, CSA, TÜV
RHEF1300	250	_	_	5,000	H13	UL, CSA, TÜV
RHEF1300-2	_	1,000	_	5,000	H13	UL, CSA, TÜV
RHEF1300-AP	_	_	1,000	5,000	H13	UL, CSA, TÜV
RHEF1400	250	_	_	5,000	H14	UL, CSA, TÜV
RHEF1400-2	_	1,000	_	5,000	H14	UL, CSA, TÜV
RHEF1400-AP	_	_	1,000	5,000	H14	UL, CSA, TÜV
RHEF1500	250	_	_	5,000	H15	UL, CSA, TÜV
RHEF1500-2	_	1,000	_	5,000	H15	UL, CSA, TÜV
RHEF1500-AP	_	_	1,000	5,000	H15	UL, CSA, TÜV
RUSBF						
6V						
RUSBF075	500	_	_	10,000	R75	UL, CSA, TÜV
RUSBF075-2	_	3,000	_	15,000	R75	UL, CSA, TÜV
RUSBF075-AP			2,000	10,000	R75	UL, CSA, TÜV
RUSBF120	500	_	_	10,000	R120	UL, CSA, TÜV
RUSBF120-2	_	3,000	_	15,000	R120	UL, CSA, TÜV
RUSBF120-AP	_		2,000	10,000	R120	UL, CSA, TÜV
RUSBF155	500	_		10,000	R155	UL, CSA, TÜV
RUSBF155-2	_	3,000	_	15,000	R155	UL, CSA, TÜV
RUSBF155-AP			2,000	10,000	R155	UL, CSA, TÜV

### **Agency Recognitions**

UL	File # E74889
CSA	File # CA78165
TÜV	Certificate number available on request (per IEC 60730-1).

#### Radial-Leaded Devices

# Table R7 - Tape and Reel Specifications

RXEF and RKEF devices are available in tape and reel packaging per EIA468-B/IEC60286-2 standards.

Description	EIA Mark	Dimension (mm)	Tolerance
Carrier Tape Width	W	18	-0.5/+1.0
Hold-Down Tape Width	W <sub>4</sub>	11	Minimum
Top Distance between Tape Edges	W <sub>6</sub>	3	Maximum
Sprocket Hole Position	W <sub>5</sub>	9	-0.5/+0.75
Sprocket Hole Diameter	D <sub>o</sub>	4	± 0.2
Abscissa to Plane (Straight Lead) (RXEF110 To RXEF300, RKEF135 To RKEF500)	Н	18.5	± 2.5
Abscissa to Plane (Kinked Lead) (RXEF010 To RXEF090, RKEF050 To RKEF110)	H₀	16.0	± 0.5
Abscissa to Top (RXEF010 To RXEF090, RKEF050 To RKEF185)	H <sub>1</sub>	32.2	Maximum
Abscissa to Top* (RXEF110 To RXEF300, RKEF250 To RKEF500)	H <sub>1</sub>	47.5	Maximum
Overall Width with Lead Protrusion (RXEF010 To RXEF090, RKEF050 To RKEF185)	C <sub>1</sub>	43.2	Maximum
Overall Width with Lead Protrusion* (RXEF110 To RXEF300, RKEF250 To RKEF500)	C <sub>1</sub>	58	Maximum
Overall Width without Lead Protrusion (RXEF010 To RXEF090, RKEF050 To RKEF185)	$C_2$	42.5	Maximum
Overall Width without Lead Protrusion* (RXEF110 To RXEF300, RKEF250 To RKEF500)	$C_2$	57	Maximum
ead Protrusion	L <sub>1</sub>	1.0	Maximum
Protrusion of Cut-Out	L	11.0	Maximum
Protrusion beyond Hold-down Tape		Not Specified	_
Sprocket Hole Pitch	P <sub>o</sub>	12.7	± 0.3
Device Pitch (RXEF010 To RXEF090, RKEF050 To RKEF185)	_	12.7	± 0.3
Device Pitch (RXEF110 To RXEF300, RKEF250 To RKEF500)	_	25.4	± 0.61
Pitch Tolerance	_	20 Consecutive	± 1
ape Thickness	Т	0.9	Maximum
Overall Tape and Lead Thickness (RXEF010 To RXEF090, RKEF050 To RKEF185)	T <sub>1</sub>	1.5	Maximum
Overall Tape and Lead Thickness (RXEF110 To RXEF300, RKEF250 To RKEF500)	T <sub>1</sub>	2.3	Maximum
Splice Sprocket Hole Alignment	_	0	± 0.3
Body Lateral Deviation	Dh	0	± 1.0
Body Tape Plane Deviation	Dp	0	± 1.3
Ordinate to Adjacent Component Lead (RXEF010 To RXEF185, RKEF050 To RKEF300)	P <sub>1</sub>	3.81	± 0.7
Ordinate to Adjacent Component Lead (RXEF250 To RXEF300, RKEF375 To RKEF500)	P <sub>1</sub>	7.62	± 0.7
ead Spacing* (RXEF010 To RXEF185, RKEF050 To RKEF300)	F	5.05	± 0.75
ead Spacing* (RXEF250 To RXEF300, RKEF375 To RKEF500)	F	10.15	± 0.75
Reel Width (RXEF010 To RXEF090, RKEF050 To RKEF185)	W <sub>2</sub>	56.0	Maximum
Reel Width* (RXEF110 To RXEF300, RKEF250 To RKEF500)	W <sub>2</sub>	63.5	Maximum
Reel Diameter	А	370.0	Maximum
Space between Flanges* (RXEF010 To RXEF090, RKEF050 To RKEF185)	W <sub>1</sub>	48.00	Maximum
Space between Flanges* (RXEF110 To RXEF300, RKEF250 To RKEF500)	W <sub>1</sub>	55.00	Maximum
Arbor Hold Diameter	С	26.0	± 12.0
Core Diameter*	N	91.0	Maximum
Зох	_	64/372/362	Maximum
Consecutive Missing Places	_	None	_
Empty Places per Reel	_	0.1%	Maximum

<sup>\*</sup>Differs from EIA specification.

#### Radial-Leaded Devices

# Table R7 - Tape and Reel Specifications

(Cont'd)

RUEF and RUSBF devices are available in tape and reel packaging per EIA468-B/IEC60286-2 standards.

Description	EIA Mark	Dimension (mm)	Tolerance
Carrier Tape Width	W	18	-0.5/+1.0
Hold-down Tape Width	$W_4$	11	Minimum
Top Distance between Tape Edges	W <sub>6</sub>	3	Maximum
Sprocket Hole Position	$W_5$	9	-0.5/+0.75
Sprocket Hole Diameter	D <sub>o</sub>	4	± 0.2
Abscissa to Plane (Straight Lead)* (RUEF300 to RUEF900)	Н	18.5	± 2.5
Abscissa to Plane (Kinked Lead) (RUSBF075 to RUSBF250, RUEF090 to RUEF250)	H <sub>o</sub>	16.0	± 0.5
Abscissa to Top (RUSBF075 to RUSBF250, RUEF090 to RUEF300)	H <sub>1</sub>	38.5	Maximum
sbscissa to Top* (RUEF400 to RUEF900)	H <sub>1</sub>	45.0	Maximum
Overall Width with Lead Protrusion (RUSBF075 to RUSBF250, RUEF090 to RUEF300)	C <sub>1</sub>	43.2	Maximum
overall Width with Lead Protrusion (RUEF400 To RUEF900)	C <sub>1</sub>	56	Maximum
Overall Width without Lead Protrusion (RUSBF075 to RUSBF250, RUEF090 to RUEF300)	$C_2$	42.5	Maximum
Overall Width without Lead Protrusion (RUEF400 to RUEF900)	C <sub>2</sub>	56	Maximum
ead Protrusion	L <sub>1</sub>	1.0	Maximum
Protrusion of Cut-out	L	11	Maximum
rotrusion beyond Hold-down Tape	I <sub>2</sub>	Not Specified	_
procket Hole Pitch	$P_0$	12.7	± 0.3
Device Pitch (RUSBF075 to RUSBF250, RUEF090 to RUEF300)	_	12.7	± 0.3
Device Pitch (RUEF400 to RUEF900)	_	25.4	± 0.6
Pitch Tolerance	_	20 Consecutive	± 1
ape Thickness	Т	0.9	Maximum
Overall Tape and Lead Thickness (RUSBF075 to RUSBF250, RUEF090 to RUEF50)	T <sub>1</sub>	1.5	Maximum
Overall Tape and Lead Thickness* (RUEF300 to RUEF900)	T <sub>1</sub>	2.3	Maximum
Splice Sprocket Hole Alignment	_	0	± 0.3
Body Lateral Deviation	Dh	0	± 1.0
Body Tape Plane Deviation	Dp	0	± 1.3
Ordinate to Adjacent Component Lead (RUSBF075 to RUSBF250, RUEF090 to RUEF300)	P <sub>1</sub>	3.81	± 0.7
Ordinate to Adjacent Component Lead (RUEF400 to RUEF900)	P <sub>1</sub>	7.62	± 0.7
ead Spacing* (RUSBF075 to RUSBF250, RUEF090 to RUEF400)	F	5.05	± 0.75
ead Spacing* (RUEF500 to RUEF900)	F	10.15	± 0.75
Reel Width (RUEF090 to RUEF400, Rusbf075 to Rusbf250)	$VV_2$	56.0	Maximum
Reel Width (RUEF500* to RUEF900)	$VV_2$	63.5	Maximum
Reel Diameter	А	370.0	Maximum
pace between Flanges* (RUEF090 to RUEF400, RUSBF075 to RUSBF250)	W <sub>1</sub>	48.0	Maximum
pace between Flanges* (RUEF500 to RUEF900)	W <sub>1</sub>	55.0	Maximum
rbor Hold Diameter	С	26.0	± 12.0
ore Diameter*	N	91.0	Maximum
3ox	_	64/372/362	Maximum
Consecutive Missing Places	_	None	_
Empty Places per Reel	_	0.1%	Maximum

<sup>\*</sup>Differs from EIA specification.

#### Radial-Leaded Devices

# Table R7 - Tape and Reel Specifications

(Cont'd)

RGEF and RHEF devices are available in tape and reel packaging per EIA468-B/IEC60286-2 standards.

Description	EIA Mark	Dimension (mm)	Tolerance
Carrier Tape Width	W	18	-0.5/+1.0
Hold-Down Tape Width	$W_4$	11	Minimum
Top Distance between Tape Edges	W <sub>6</sub>	3	Maximum
Sprocket Hole Position	W <sub>5</sub>	9	-0.5/+0.75
Sprocket Hole Diameter	D <sub>o</sub>	4	± 0.2
Abscissa to Plane (Straight Lead) (RGEF250 to RGEF1400)	Н	18.5	± 2.5
Abscissa to Plane (Kinked Lead) (Rhef050 to RGEF1500)	H <sub>o</sub>	16.0	± 0.5
Abscissa to Top (RGEF250 to RGEF500, RGEF050 to RGEF450)	H <sub>1</sub>	38.5	Maximum
Abscissa to Top* (RGEF600 to RGEF1400, RHEF550 to RHEF1500)	H <sub>1</sub>	45.0	Maximum
Overall Width with Lead Protrusion (RGEF250 to RGEF600, RHEF050 to RHEF450)	C <sub>1</sub>	43.2	Maximum
Overall Width with Lead Protrusion (RGEF700 to RGEF1400, RHEF550 to RHEF1500)	C <sub>1</sub>	55	Maximum
Overall Width without Lead Protrusion (RGEF250 to RGEF600, RHEF050 to RHEF450)	C <sub>2</sub>	42.5	Maximum
Overall Width without Lead Protrusion (RGEF700 to RGEF1400, RHEF550 to RHEF1500)	C <sub>2</sub>	54	Maximum
ead Protrusion	L <sub>1</sub>	1.0	Maximum
Protrusion of Cut-out	L	11	Maximum
Protrusion beyond Hold-down Tape	l <sub>2</sub>	Not Specified	_
procket Hole Pitch	P <sub>0</sub>	12.7	± 0.3
levice Pitch (RGEF250 to RGEF700, RHEF050 to RHEF600)	_	25.4	± 0.61
evice Pitch (RGEF800 to RGEF1400, RHEF650 to RHEF1500)	_	25.4	± 0.6
Pitch Tolerance	_	20 Consecutive	± 1
ape Thickness	Т	0.9	Maximum
Overall Tape and Lead Thickness* (RGEF250 to RGEF1100, RHEF050 to RHEF1100)	T <sub>1</sub>	2.0	Maximum
overall Tape and Lead Thickness* (RGEF1200 to RGEF1400, RHEF1300 to RHEF1500)	T <sub>1</sub>	2.3	Maximum
plice Sprocket Hole Alignment	_	0	± 0.3
lody Lateral Deviation	Dh	0	± 1.0
Rody Tape Plane Deviation	Dp	0	± 1.3
Ordinate to Adjacent Component Lead (RGEF250 to RGEF1100, RHEF050 to RHEF900)	P <sub>1</sub>	3.81	± 0.7
Ordinate to Adjacent Component Lead (RGEF1200 to RGEF1400, RHEF1000 to RHEF1500)	P <sub>1</sub>	7.62	± 0.7
ead Spacing* (RGEF250 to RGEF1100, RHEF050 to RHEF900)	F	5.05	± 0.75
ead Spacing* (RGEF1200 to RGEF1400, RHEF1000 to RHEF1500)	F	10.15	± 0.75
Reel Width (RGEF250 to RGEF600, RHEF050 to RHEF450)	$W_2$	56.0	Maximum
leel Width* (RGEF700 to RGEF1400 & RHEF550 to RHEF1500)	$W_2$	63.5	Maximum
leel Diameter	А	370.0	Maximum
pace between Flanges* (RGEF250 to RGEF600, RHEF050 to RHEF450)	W <sub>1</sub>	48.0	Maximum
pace between Flanges* (RGEF700 to RGEF400, RHEF550 to RHEF1500)	W <sub>1</sub>	55.0	Maximum
arbor Hold Diameter	С	26.0	± 12.0
Core Diameter*	N	91.0	Maximum
Box	_	64/372/362	Maximum
Consecutive Missing Places	_	None	_
Empty Places per Reel	_	0.1%	Maximum

<sup>\*</sup>Differs from EIA specification.

Radial-Leaded Devices

Figure R21 — EIA Referenced Taped Component Dimensions

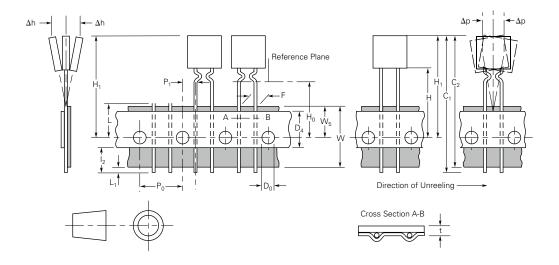
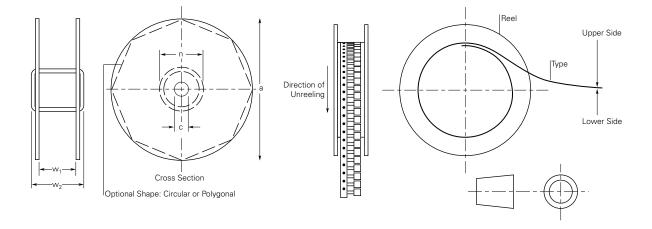
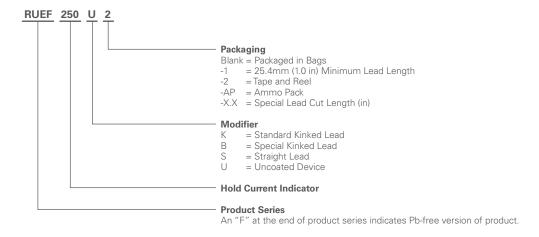


Figure R22 — EIA Referenced Reel Dimensions



#### Radial-Leaded Devices

#### Part Numbering System



Note: Kinked parts are recommended to control the height of the part on the PCB in non-auto PCB applications.



- Users should independently evaluate the suitability of and test each product selected for their own application.
- · Operation beyond the maximum ratings or improper use may result in device damage and possible electrical arcing and flame.
- These devices are intended for protection against damage caused by occasional overcurrent or overtemperature fault conditions and should not be used when repeated fault conditions or prolonged trip events are anticipated.
- Contamination of the PPTC material with certain silicone-based oils or some aggressive solvents can adversely impact the performance of the devices.
- Device performance can be impacted negatively if devices are handled in a manner inconsistent with recommended electronic, thermal, and mechanical procedures for electronic components.
- PPTC devices are not recommended for installation in applications where the device is constrained such that its PTC properties are inhibited, for example in rigid potting materials or in rigid housings, which lack adequate clearance to accommodate device expansion.
- Operation in circuits with a large inductance can generate a circuit voltage (Ldi/dt) above the rated voltage of the device.

#### Notice:

Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and shall not be used for, any purpose (including, without limitation, military, aerospace, medical, life-saving, life-sustaining or nuclear facility applications, devices intended for surgical implant into the body, or any other application in which the failure or lack of desired operation of the product may result in personal injury, death, or property damage) other than those expressly set forth in applicable Littelfuse product documentation. Warranties granted by Littelfuse shall be deemed void for products used for any purpose not expressly set forth in applicable Littelfuse documentation. Littelfuse shall not be liable for any claims or damages arising out of products used in applications not expressly intended by Littelfuse as set forth in applicable Littelfuse documentation. The sale and use of Littelfuse products is subject to Littelfuse Terms and Conditions of Sale, unless otherwise agreed by Littelfuse.

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RGEF1100 RGEF1200 RGEF1400 RGEF300 RGEF300-2 RGEF400 RGEF500-2 RGEF600
RGEF600-2 RGEF700 RGEF800 RGEF900 RHEF050 RHEF1000 RHEF750 RHEF750-2 RHEF900 RUEF090
RUEF090-2 RUEF110 RUEF135 RUEF160 RUEF185 RUEF185-2 RUEF250 RUEF250-2 RUEF250S RUEF250U
RUEF300 RUEF300-2 RUEF300K-2 RUEF400 RUEF400-2 RUEF500 RUEF500-2 RUEF500K-2 RUEF600
RUEF600K RUEF700 RUEF700K RUEF800 RUEF900 RUSBF090 RUSBF110 RUSBF120-2 RUSBF135
RUSBF155 RUSBF160 RUSBF185 RXEF005 RXEF010 RXEF010-2 RXEF010S RXEF017 RXEF017-2 RXEF020
RXEF020-2 RXEF020S RXEF020S-2 RXEF025 RXEF025-2 RXEF030 RXEF030-2 RXEF030S RXEF040
RXEF040-2 RXEF040S RXEF050-2 RXEF050S RXEF065 RXEF065S RXEF075 RXEF075-2 RXEF075S
RXEF090-2 RXEF110 RXEF110-2 RXEF110K RXEF110K-2 RXEF160 RXEF250 RXEF375 RGEF400-AP
RUEF185-1 RXEF025-AP RXEF050-1 RXEF185-AP RXEF300-1 RUEF700-2 RXEF005-2 RGEF1000-2
RUEF400K-2 RKEF050 RKEF065 RKEF075 RKEF090 RKEF110 RKEF135 RKEF160