

FOCUS ON SEMICONDUCTORS



# 产品选型手册

Product Selection Guide  
2011

## 瞬态抑制二极管

Transient Voltage Suppressor



Protection Devices



# Transient Voltage Suppressor

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# The **TVS** Transient Voltage Suppressor



Transient Voltage Suppression (TVS) diodes are solid state pn junction devices specifically designed to protect semiconductors from the damaging effects of transient voltages. The electrical characteristics of the transient protection circuit are determined by factors such as junction area, doping concentration, and substrate resistivity. The surge power and surge current capability of the TVS diode are proportional to the junction area. TVS diodes are constructed with large cross sectional area junctions for absorbing high transient current. While the VI characteristic curve of the TVS diode is similar to that of a zener diode, TVS diodes are specifically designed, characterized, and tested for transient voltage suppression. By contrast, zener diodes are designed and specified for voltage regulation.

## FEATURES

- All Range Peak Pulse Power Dissipation
- All Voltage Range 5.0V - 550V
- Constructed with Glass Passivated Die
- Uni- and Bidirectional Versions Available
- Excellent Clamping Capability
- Fast Response Time (typically less than 1.0ps from 0 Volts to BV min)
- Low incremental surge resistance
- Rohs compliant

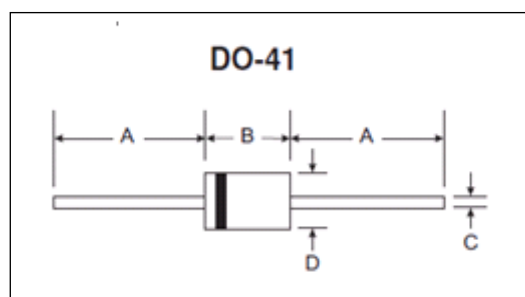
## APPLICATION

- computer system
- ac/dc power supply
- household electric appliances
- instruments and meters (electricity meter)
- communication equipment (LAN, ISDN, ADSL...)
- MP3, PDAS...
- digital cameras of protection
- common-mode/differential-mode protection
- GPS system

# P4KE SERIES

Part Number		Reverse Stand-Off Voltage $V_{RWM}$ (V)	Breakdown Voltage $V_{BR}$ (V)		Test Current $I_T$ (mA)	Maximum Clamping Voltage @ $I_{PP}$ $V_c$ (V)	Peak Pulse Current $I_{PP}$ (A)	Reverse Leakage @ $V_{RWM}$ $I_R$ ( $\mu$ A)
UNI	BI		MIN.@ $I_T$	MAX.@ $I_T$				
P4KE6.8A	P4KE6.8CA	5.8	6.45	7.14	10	10.5	39.0	1000.0
P4KE7.5A	P4KE7.5CA	6.4	7.13	7.88	10	11.3	36.3	500.0
P4KE8.2A	P4KE8.2CA	7.0	7.79	8.61	10	12.1	33.9	200.0
P4KE9.1A	P4KE9.1CA	7.8	8.65	9.55	1	13.4	30.6	50.0
P4KE10A	P4KE10CA	8.6	9.50	10.50	1	14.5	28.3	10.0
P4KE11A	P4KE11CA	9.4	10.50	11.60	1	15.6	26.3	5.0
P4KE12A	P4KE12CA	10.2	11.40	12.60	1	16.7	24.6	5.0
P4KE13A	P4KE13CA	11.1	12.40	13.70	1	18.2	22.5	5.0
P4KE15A	P4KE15CA	12.8	14.30	15.80	1	21.2	19.3	5.0
P4KE16A	P4KE16CA	13.6	15.20	16.80	1	22.5	18.2	5.0
P4KE18A	P4KE18CA	15.3	17.10	18.90	1	25.5	16.1	5.0
P4KE20A	P4KE20CA	17.1	19.00	21.00	1	27.7	14.8	5.0
P4KE22A	P4KE22CA	18.8	20.90	23.10	1	30.6	13.4	5.0
P4KE24A	P4KE24CA	20.5	22.80	25.20	1	33.2	12.3	5.0
P4KE27A	P4KE27CA	23.1	25.70	28.40	1	37.5	10.9	5.0
P4KE30A	P4KE30CA	25.6	28.50	31.50	1	41.4	9.9	5.0
P4KE33A	P4KE33CA	28.2	31.40	34.70	1	45.7	9.0	5.0
P4KE36A	P4KE36CA	30.8	34.20	37.80	1	49.9	8.2	5.0
P4KE39A	P4KE39CA	33.3	37.10	41.00	1	53.9	7.6	5.0
P4KE43A	P4KE43CA	36.8	40.90	45.20	1	59.3	6.9	5.0
P4KE47A	P4KE47CA	40.2	44.70	49.40	1	64.8	6.3	5.0
P4KE51A	P4KE51CA	43.6	48.50	53.60	1	70.1	5.8	5.0
P4KE56A	P4KE56CA	47.8	53.20	58.80	1	77.0	5.3	5.0
P4KE62A	P4KE62CA	53.0	58.90	65.10	1	85.0	4.8	5.0
P4KE68A	P4KE68CA	58.1	64.60	71.40	1	92.0	4.5	5.0
P4KE75A	P4KE75CA	64.1	71.30	78.80	1	103.0	4.0	5.0
P4KE82A	P4KE82CA	70.1	77.90	86.10	1	113.0	3.6	5.0
P4KE91A	P4KE91CA	77.8	86.50	95.50	1	125.0	3.3	5.0
P4KE100A	P4KE100CA	85.5	95.00	105.00	1	137.0	3.0	5.0
P4KE110A	P4KE110CA	94.0	105.00	116.00	1	152.0	2.7	5.0

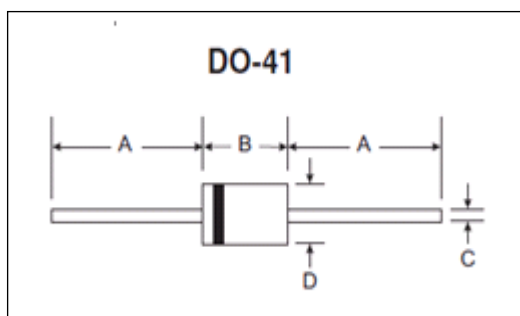
## PACKAGE INFORMATION



DO-41		
Dim	Min	Max
A	25.40	--
B	4.10	5.20
C	0.686	0.889
D	2.00	2.70
All Dimensions In mm		

Part Number		Reverse Stand-Off Voltage $V_{RWM}$ (V)	Breakdown Voltage $V_{BR}$ (V)		Test Current $I_T$ (mA)	Maximum Clamping Voltage @ $I_{PP}$ $V_C$ (V)	Peak Pulse Current $I_{PP}$ (A)	Reverse Leakage @ $V_{RWM}$ $I_R$ ( $\mu$ A)
UNI	BI		MIN.@ $I_T$	MAX.@ $I_T$				
P4KE120A	P4KE120CA	102.0	114.00	126.00	1	165.0	2.5	5.0
P4KE130A	P4KE130CA	111.0	124.00	137.00	1	179.0	2.3	5.0
P4KE150A	P4KE150CA	128.0	143.00	158.00	1	207.0	2.0	5.0
P4KE160A	P4KE160CA	136.0	152.00	168.00	1	219.0	1.9	5.0
P4KE170A	P4KE170CA	145.0	162.00	179.00	1	234.0	1.8	5.0
P4KE180A	P4KE180CA	154.0	171.00	189.00	1	246.0	1.7	5.0
P4KE200A	P4KE200CA	171.0	190.00	210.00	1	274.0	1.5	5.0
P4KE220A	P4KE220CA	185.0	209.00	231.00	1	328.0	1.3	5.0
P4KE250A	P4KE250CA	214.0	237.00	263.00	1	344.0	1.2	5.0
P4KE300A	P4KE300CA	256.0	285.00	315.00	1	414.0	1.0	5.0
P4KE350A	P4KE350CA	300.0	332.00	368.00	1	482.0	0.9	5.0
P4KE400A	P4KE400CA	342.0	380.00	420.00	1	548.0	0.8	5.0
P4KE440A	P4KE440CA	376.0	418.00	462.00	1	602.0	0.7	5.0
P4KE480A	P4KE480CA	408.0	456.00	504.00	1	658.0	0.6	5.0
P4KE510A	P4KE510CA	434.0	485.00	535.00	1	698.0	0.6	5.0
P4KE530A	P4KE530CA	477.0	503.50	556.50	1	725.0	0.6	5.0
P4KE540A	P4KE540CA	459.0	513.00	567.00	1	740.0	0.5	5.0
P4KE550A	P4KE550CA	495.0	522.50	577.50	1	760.0	0.5	5.0

## PACKAGE INFORMATION

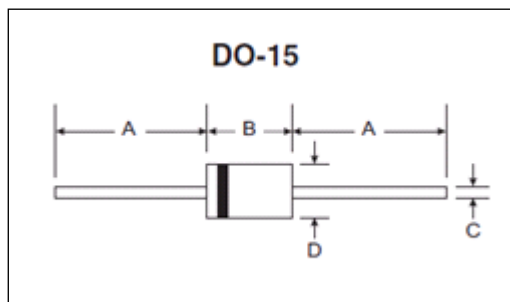


DO-41		
Dim	Min	Max
A	25.40	--
B	4.10	5.20
C	0.686	0.889
D	2.00	2.70
All Dimensions In mm		

# SA SERIES

Part Number		Reverse Stand-Off Voltage $V_{RWM}$ (V)	Breakdown Voltage $V_{BR}$ (V)		Test Current $I_T$ (mA)	Maximum Clamping Voltage @ $I_{PP}$ $V_C$ (V)	Peak Pulse Current $I_{PP}$ (A)	Reverse Leakage @ $V_{RWM}$ $I_R$ ( $\mu$ A)
			MIN.@ $I_T$	MAX.@ $I_T$				
SA5.0A	SA5.0CA	5.0	6.40	7.00	10	9.2	55.4	600.0
SA6.0A	SA6.0CA	6.0	6.67	7.37	10	10.3	49.5	600.0
SA6.5A	SA6.5CA	6.5	7.22	7.98	10	11.2	45.5	400.0
SA7.0A	SA7.0CA	7.0	7.78	8.60	10	12.0	42.5	150.0
SA7.5A	SA7.5CA	7.5	8.33	9.21	1	12.9	39.5	50.0
SA8.0A	SA8.0CA	8.0	8.89	9.83	1	13.6	37.5	25.0
SA8.5A	SA8.5CA	8.5	9.44	10.40	1	14.4	35.4	10.0
SA9.0A	SA9.0CA	9.0	10.00	11.10	1	15.4	33.1	5.0
SA10A	SA10CA	10.0	11.10	12.30	1	17.0	30.0	3.0
SA11A	SA11CA	11.0	12.20	13.50	1	18.2	28.0	3.0
SA12A	SA12CA	12.0	13.30	14.70	1	19.9	25.6	3.0
SA13A	SA13CA	13.0	14.40	15.90	1	21.5	23.7	3.0
SA14A	SA14CA	14.0	15.60	17.20	1	23.2	22.0	3.0
SA15A	SA15CA	15.0	16.70	18.50	1	24.4	20.9	3.0
SA16A	SA16CA	16.0	17.80	19.70	1	26.0	19.6	3.0
SA17A	SA17CA	17.0	18.90	20.90	1	27.6	18.5	3.0
SA18A	SA18CA	18.0	20.00	22.10	1	29.2	17.5	3.0
SA20A	SA20CA	20.0	22.20	24.50	1	32.4	15.7	3.0
SA22A	SA22CA	22.0	24.40	26.90	1	35.5	14.4	3.0
SA24A	SA24CA	24.0	26.70	29.50	1	38.9	13.1	3.0
SA26A	SA26CA	26.0	28.90	31.90	1	42.1	12.1	3.0
SA28A	SA28CA	28.0	31.10	34.40	1	45.4	11.2	3.0
SA30A	SA30CA	30.0	33.30	36.80	1	48.4	10.5	3.0
SA33A	SA33CA	33.0	36.70	40.60	1	53.3	9.6	3.0
SA36A	SA36CA	36.0	40.00	44.20	1	58.1	8.8	3.0
SA40A	SA40CA	40.0	44.40	49.10	1	64.5	7.9	3.0
SA43A	SA43CA	43.0	47.80	52.80	1	69.4	7.3	3.0
SA45A	SA45CA	45.0	50.00	55.30	1	72.7	7.0	3.0
SA48A	SA48CA	48.0	53.30	58.90	1	77.4	6.6	3.0
SA51A	SA51CA	51.0	56.70	62.70	1	82.4	6.2	3.0

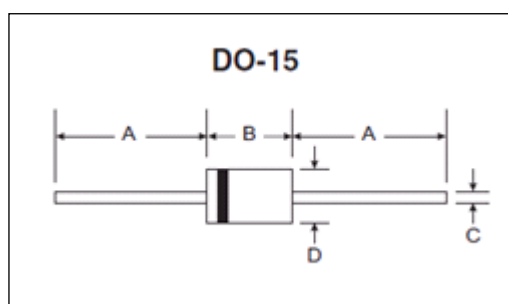
## PACKAGE INFORMATION



DO-15		
Dim	Min	Max
A	25.40	--
B	5.50	7.62
C	0.686	0.889
D	2.60	3.60
All Dimensions In mm		

Part Number		Reverse Stand-Off Voltage $V_{RWM}$ (V)	Breakdown Voltage $V_{BR}$ (V)		Test Current $I_T$ (mA)	Maximum Clamping Voltage @ $I_{PP}$ $V_C$ (V)	Peak Pulse Current $I_{PP}$ (A)	Reverse Leakage @ $V_{RWM}$ $I_R$ ( $\mu$ A)
UNI	BI		MIN. @ $I_T$	MAX. @ $I_T$				
SA54A	SA54CA	54.0	60.00	66.30	1	87.1	5.9	3.0
SA58A	SA58CA	58.0	64.40	71.20	1	93.6	5.4	3.0
SA60A	SA60CA	60.0	66.70	73.70	1	96.8	5.3	3.0
SA64A	SA64CA	64.0	71.10	78.60	1	103.0	5.0	3.0
SA70A	SA70CA	70.0	77.80	86.00	1	113.0	4.5	3.0
SA75A	SA75CA	75.0	83.30	92.10	1	121.0	4.2	3.0
SA78A	SA78CA	78.0	86.70	95.80	1	126.0	4.0	3.0
SA85A	SA85CA	85.0	94.40	104.00	1	137.0	3.7	3.0
SA90A	SA90CA	90.0	100.00	111.00	1	146.0	3.5	3.0
SA100A	SA100CA	100.0	111.00	123.00	1	162.0	3.1	3.0
SA110A	SA110CA	110.0	122.00	135.00	1	177.0	2.9	3.0
SA120A	SA120CA	120.0	133.00	147.00	1	193.0	2.6	3.0
SA130A	SA130CA	130.0	144.00	159.00	1	209.0	2.4	3.0
SA150A	SA150CA	150.0	167.00	185.00	1	243.0	2.1	3.0
SA160A	SA160CA	160.0	178.00	197.00	1	259.0	2.0	3.0
SA170A	SA170CA	170.0	189.00	209.00	1	275.0	1.9	3.0
SA180A	SA180CA	180.0	200.00	233.00	1	289.0	1.7	3.0

## PACKAGE INFORMATION

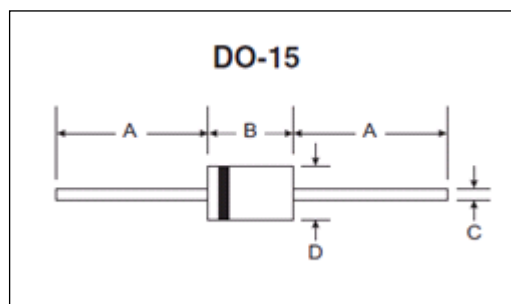


DO-15		
Dim	Min	Max
A	25.40	--
B	5.50	7.62
C	0.686	0.889
D	2.60	3.60
All Dimensions In mm		

# P6KE SERIES

Part Number		Reverse Stand-Off Voltage $V_{RWM}$ (V)	Breakdown Voltage $V_{BR}$ (V)		Test Current $I_T$ (mA)	Maximum Clamping Voltage @ $I_{PP}$ $V_C$ (V)	Peak Pulse Current $I_{PP}$ (A)	Reverse Leakage @ $V_{RWM}$ $I_R$ ( $\mu$ A)
UNI	BI		MIN.@ $I_T$	MAX.@ $I_T$				
P6KE6.8A	P6KE6.8CA	5.8	6.45	7.14	10	10.5	58.1	1000.0
P6KE7.5A	P6KE7.5CA	6.4	7.13	7.88	10	11.3	54.0	500.0
P6KE8.2A	P6KE8.2CA	7.0	7.79	8.61	10	12.1	50.4	200.0
P6KE9.1A	P6KE9.1CA	7.8	8.65	9.55	1	13.4	45.5	50.0
P6KE10A	P6KE10CA	8.6	9.50	10.50	1	14.5	42.1	10.0
P6KE11A	P6KE11CA	9.4	10.50	11.60	1	15.6	39.1	5.0
P6KE12A	P6KE12CA	10.2	11.40	12.60	1	16.7	36.5	5.0
P6KE13A	P6KE13CA	11.1	12.40	13.70	1	18.2	33.5	5.0
P6KE15A	P6KE15CA	12.8	14.30	15.80	1	21.2	28.8	5.0
P6KE16A	P6KE16CA	13.6	15.20	16.80	1	22.5	27.1	5.0
P6KE18A	P6KE18CA	15.3	17.10	18.90	1	25.2	24.2	5.0
P6KE20A	P6KE20CA	17.1	19.00	21.00	1	27.7	22.0	5.0
P6KE22A	P6KE22CA	18.8	20.90	23.10	1	30.6	19.9	5.0
P6KE24A	P6KE24CA	20.5	22.80	25.20	1	33.2	18.4	5.0
P6KE27A	P6KE27CA	23.1	25.70	28.40	1	37.5	16.3	5.0
P6KE30A	P6KE30CA	25.6	28.50	31.50	1	41.4	14.7	5.0
P6KE33A	P6KE33CA	28.2	31.40	34.70	1	45.7	13.3	5.0
P6KE36A	P6KE36CA	30.8	34.20	37.80	1	49.9	12.2	5.0
P6KE39A	P6KE39CA	33.3	37.10	41.00	1	53.9	11.3	5.0
P6KE43A	P6KE43CA	36.8	40.90	45.20	1	59.3	10.3	5.0
P6KE47A	P6KE47CA	40.2	44.70	49.40	1	64.8	9.4	5.0
P6KE51A	P6KE51CA	43.6	48.50	53.60	1	70.1	8.7	5.0
P6KE56A	P6KE56CA	47.8	53.20	58.80	1	77.0	7.9	5.0
P6KE62A	P6KE62CA	53.0	58.90	65.10	1	85.0	7.2	5.0
P6KE68A	P6KE68CA	58.1	64.60	71.40	1	92.0	6.6	5.0
P6KE75A	P6KE75CA	64.1	71.30	78.80	1	103.0	5.9	5.0
P6KE82A	P6KE82CA	70.1	77.90	86.10	1	113.0	5.4	5.0
P6KE91A	P6KE91CA	77.8	86.50	95.50	1	125.0	4.9	5.0
P6KE100A	P6KE100CA	85.5	95.00	105.00	1	137.0	4.5	5.0
P6KE110A	P6KE110CA	94.0	105.00	116.00	1	152.0	4.0	5.0

## PACKAGE INFORMATION

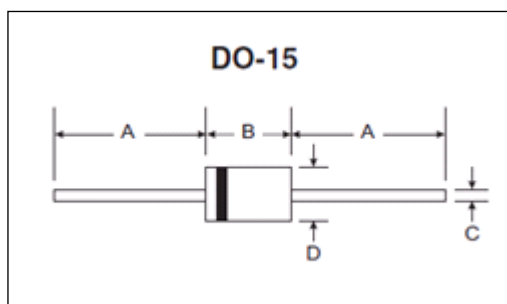


DO-15		
Dim	Min	Max
A	25.40	--
B	5.50	7.62
C	0.686	0.889
D	2.60	3.60
All Dimensions In mm		



Part Number		Reverse Stand-Off Voltage $V_{RWM}$ (V)	Breakdown Voltage $V_{BR}$ (V)		Test Current $I_T$ (mA)	Maximum Clamping Voltage @ $I_{PP}$ $V_C$ (V)	Peak Pulse Current $I_{PP}$ (A)	Reverse Leakage @ $V_{RWM}$ $I_R$ ( $\mu$ A)
UNI	BI		MIN.@ $I_T$	MAX.@ $I_T$				
P6KE120A	P6KE120CA	102.0	114.00	126.00	1	165.0	3.7	5.0
P6KE130A	P6KE130CA	111.0	124.00	137.00	1	179.0	3.4	5.0
P6KE150A	P6KE150CA	128.0	143.00	158.00	1	207.0	2.9	5.0
P6KE160A	P6KE160CA	136.0	152.00	168.00	1	219.0	2.8	5.0
P6KE170A	P6KE170CA	145.0	162.00	179.00	1	234.0	2.6	5.0
P6KE180A	P6KE180CA	154.0	171.00	189.00	1	246.0	2.5	5.0
P6KE200A	P6KE200CA	171.0	190.00	210.00	1	274.0	2.2	5.0
P6KE220A	P6KE220CA	185.0	209.00	231.00	1	328.0	1.9	5.0
P6KE250A	P6KE250CA	214.0	237.00	263.00	1	344.0	1.8	5.0
P6KE300A	P6KE300CA	256.0	285.00	315.00	1	414.0	1.5	5.0
P6KE350A	P6KE350CA	300.0	332.00	368.00	1	482.0	1.3	5.0
P6KE400A	P6KE400CA	342.0	380.00	420.00	1	548.0	1.1	5.0
P6KE440A	P6KE440CA	376.0	418.00	462.00	1	602.0	1.0	5.0
P6KE480A	P6KE480CA	408.0	456.00	504.00	1	658.0	0.9	5.0
P6KE510A	P6KE510CA	434.0	485.00	535.00	1	698.0	0.9	5.0
P6KE530A	P6KE530CA	477.0	503.50	556.50	1	725.0	0.8	5.0
P6KE540A	P6KE540CA	459.0	513.00	567.00	1	740.0	0.8	5.0
P6KE550A	P6KE550CA	495.0	522.50	577.50	1	760.0	0.8	5.0
P6KE600A	P6KE600CA	512.0	570.00	630.00	1	828.0	0.8	5.0

## PACKAGE INFORMATION

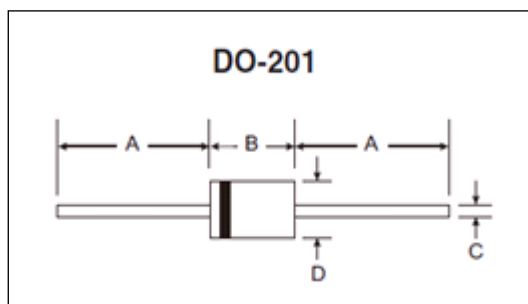


DO-15		
Dim	Min	Max
A	25.40	--
B	5.50	7.62
C	0.686	0.889
D	2.60	3.60
All Dimensions In mm		

# 1.5KE SERIES

Part Number		Reverse Stand-Off Voltage $V_{RWM}$ (V)	Breakdown Voltage $V_{BR}$ (V)		Test Current $I_T$ (mA)	Maximum Clamping Voltage @ $I_{PP}$ $V_C$ (V)	Peak Pulse Current $I_{PP}$ (A)	Reverse Leakage @ $V_{RWM}$ $I_R$ ( $\mu$ A)
UNI	BI		MIN.@ $I_T$	MAX.@ $I_T$				
1.5KE6.8A	1.5KE6.8CA	5.8	6.45	7.14	10	10.5	144.8	1000.0
1.5KE7.5A	1.5KE7.5CA	6.4	7.13	7.88	10	11.3	134.5	500.0
1.5KE8.2A	1.5KE8.2CA	7.0	7.79	8.61	10	12.1	125.6	200.0
1.5KE9.1A	1.5KE9.1CA	7.8	8.65	9.50	1	13.4	113.4	50.0
1.5KE10A	1.5KE10CA	8.6	9.50	10.50	1	14.5	104.8	10.0
1.5KE11A	1.5KE11CA	9.4	10.50	11.60	1	15.6	97.4	5.0
1.5KE12A	1.5KE12CA	10.2	11.40	12.60	1	16.7	91.0	5.0
1.5KE13A	1.5KE13CA	11.1	12.40	13.70	1	18.2	83.5	5.0
1.5KE15A	1.5KE15CA	12.8	14.30	15.80	1	21.2	71.7	5.0
1.5KE16A	1.5KE16CA	13.6	15.20	16.80	1	22.5	67.6	5.0
1.5KE18A	1.5KE18CA	15.3	17.10	18.90	1	25.2	60.3	5.0
1.5KE20A	1.5KE20CA	17.1	19.00	21.00	1	27.7	54.9	5.0
1.5KE22A	1.5KE22CA	18.8	20.90	23.10	1	30.6	49.7	5.0
1.5KE24A	1.5KE24CA	20.5	22.80	25.20	1	33.2	45.8	5.0
1.5KE27A	1.5KE27CA	23.1	25.70	28.40	1	37.5	40.5	5.0
1.5KE30A	1.5KE30CA	25.6	28.50	31.50	1	41.4	36.7	5.0
1.5KE33A	1.5KE33CA	28.2	31.40	34.70	1	45.7	33.3	5.0
1.5KE36A	1.5KE36CA	30.8	34.20	37.80	1	49.9	30.5	5.0
1.5KE39A	1.5KE39CA	33.3	37.10	41.00	1	53.9	28.2	5.0
1.5KE43A	1.5KE43CA	36.8	40.90	45.20	1	59.3	25.6	5.0
1.5KE47A	1.5KE47CA	40.2	44.70	49.40	1	64.8	23.5	5.0
1.5KE51A	1.5KE51CA	43.6	48.50	53.60	1	70.1	21.7	5.0
1.5KE56A	1.5KE56CA	47.8	53.20	58.80	1	77.0	19.7	5.0
1.5KE62A	1.5KE62CA	53.0	58.90	65.10	1	85.0	17.9	5.0
1.5KE68A	1.5KE68CA	58.1	64.60	71.40	1	92.0	16.5	5.0
1.5KE75A	1.5KE75CA	64.1	71.30	78.80	1	103.0	14.8	5.0
1.5KE82A	1.5KE82CA	70.1	77.90	86.10	1	113.0	13.5	5.0
1.5KE91A	1.5KE91CA	77.8	86.50	95.50	1	125.0	12.2	5.0
1.5KE100A	1.5KE100CA	85.5	95.00	105.00	1	137.0	11.1	5.0
1.5KE110A	1.5KE110CA	94.0	105.00	116.00	1	152.0	10.0	5.0

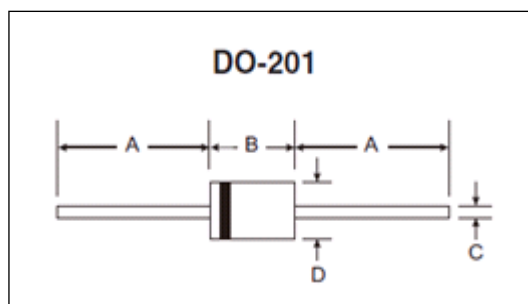
## PACKAGE INFORMATION



DO-201		
Dim	Min	Max
A	25.40	--
B	8.50	9.53
C	0.96	1.06
D	4.80	5.21
All Dimensions In mm		

Part Number		Reverse Stand-Off Voltage $V_{RWM}$ (V)	Breakdown Voltage $V_{BR}$ (V)		Test Current $I_T$ (mA)	Maximum Clamping Voltage @ $I_{PP}$ $V_C$ (V)	Peak Pulse Current $I_{PP}$ (A)	Reverse Leakage @ $V_{RWM}$ $I_R$ ( $\mu$ A)
UNI	BI		MIN.@ $I_T$	MAX.@ $I_T$				
1.5KE120A	1.5KE120CA	102.0	114.00	126.00	1	165.0	9.2	5.0
1.5KE130A	1.5KE130CA	111.0	124.00	137.00	1	179.0	8.5	5.0
1.5KE150A	1.5KE150CA	128.0	143.00	158.00	1	207.0	7.3	5.0
1.5KE160A	1.5KE160CA	136.0	152.00	168.00	1	219.0	6.9	5.0
1.5KE170A	1.5KE170CA	145.0	162.00	179.00	1	234.0	6.5	5.0
1.5KE180A	1.5KE180CA	154.0	171.00	189.00	1	246.0	6.2	5.0
1.5KE200A	1.5KE200CA	171.0	190.00	210.00	1	274.0	5.5	5.0
1.5KE220A	1.5KE220CA	185.0	209.00	231.00	1	328.0	4.6	5.0
1.5KE250A	1.5KE250CA	214.0	237.00	263.00	1	344.0	4.4	5.0
1.5KE300A	1.5KE300CA	256.0	285.00	315.00	1	414.0	3.7	5.0
1.5KE350A	1.5KE350CA	300.0	332.00	368.00	1	482.0	3.2	5.0
1.5KE400A	1.5KE400CA	342.0	380.00	420.00	1	548.0	2.8	5.0
1.5KE440A	1.5KE440CA	376.0	418.00	462.00	1	602.0	2.5	5.0
1.5KE480A	1.5KE480CA	408.0	456.00	504.00	1	658.0	2.3	5.0
1.5KE510A	1.5KE510CA	434.0	485.00	535.00	1	698.0	2.1	5.0
1.5KE530A	1.5KE530CA	477.0	503.50	556.50	1	725.0	2.1	5.0
1.5KE540A	1.5KE540CA	459.0	513.00	567.00	1	740.0	2.0	5.0
1.5KE550A	1.5KE550CA	495.0	522.50	577.50	1	760.0	2.0	5.0

## PACKAGE INFORMATION

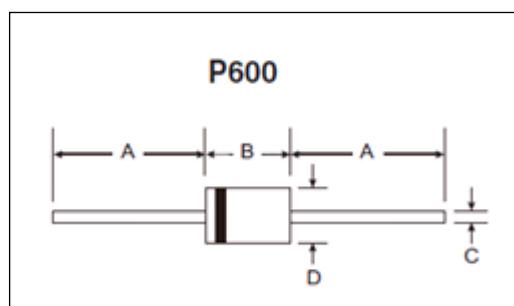


DO-201		
Dim	Min	Max
A	25.40	--
B	8.50	9.53
C	0.96	1.06
D	4.80	5.21
All Dimensions In mm		

## 5KP SERIES

Part Number		Reverse Stand-Off Voltage $V_{RWM}$ (V)	Breakdown Voltage $V_{BR}$ (V)		Test Current $I_T$ (mA)	Maximum Clamping Voltage @ $I_{PP}$ $V_C$ (V)	Peak Pulse Current $I_{PP}$ (A)	Reverse Leakage @ $V_{RWM}$ $I_R$ ( $\mu$ A)
			MIN.@ $I_T$	MAX.@ $I_T$				
5KP5.0A	5KP5.0CA	5.0	6.40	7.00	50	554.3	5000	9.2
5KP6.0A	5KP6.0CA	6.0	6.67	7.37	50	495.1	5000	10.3
5KP6.5A	5KP6.5CA	6.5	7.22	7.98	50	455.4	2000	11.2
5KP7.0A	5KP7.0CA	7.0	7.78	8.60	50	425.0	1000	12.0
5KP7.5A	5KP7.5CA	7.5	8.33	9.21	5	395.3	250	12.9
5KP8.0A	5KP8.0CA	8.0	8.89	9.83	5	375.0	150	13.6
5KP8.5A	5KP8.5CA	8.5	9.44	10.40	5	354.2	50	14.4
5KP9.0A	5KP9.0CA	9.0	10.00	11.10	5	331.2	20	15.4
5KP10A	5KP10CA	10.0	11.10	12.30	5	300.0	15	17.0
5KP11A	5KP11CA	11.0	12.20	13.50	5	280.2	10	18.2
5KP12A	5KP12CA	12.0	13.30	14.70	5	256.3	10	19.9
5KP13A	5KP13CA	13.0	14.40	15.90	5	237.2	10	21.5
5KP14A	5KP14CA	14.0	15.60	17.20	5	219.8	10	23.2
5KP15A	5KP15CA	15.0	16.70	18.50	5	209.0	10	24.4
5KP16A	5KP16CA	16.0	17.80	19.70	5	196.2	10	26.0
5KP17A	5KP17CA	17.0	18.90	20.90	5	184.8	10	27.6
5KP18A	5KP18CA	18.0	20.00	22.10	5	174.7	10	29.2
5KP20A	5KP20CA	20.0	22.20	24.50	5	157.4	10	32.4
5KP22A	5KP22CA	22.0	24.00	26.90	5	143.7	10	35.5
5KP24A	5KP24CA	24.0	26.70	29.50	5	131.1	10	38.9
5KP26A	5KP26CA	26.0	28.90	31.90	5	121.1	10	42.1
5KP28A	5KP28CA	28.0	31.10	34.40	5	112.3	10	45.4
5KP30A	5KP30CA	30.0	33.30	36.80	5	105.4	10	48.4
5KP33A	5KP33CA	33.0	36.70	40.60	5	95.7	10	53.3
5KP36A	5KP36CA	36.0	40.00	44.20	5	87.8	10	58.1
5KP40A	5KP40CA	40.0	44.40	49.10	5	79.1	10	64.5
5KP43A	5KP43CA	43.0	47.80	52.80	5	73.5	10	69.4
5KP45A	5KP45CA	45.0	50.00	55.30	5	70.2	10	72.7
5KP48A	5KP48CA	48.0	53.30	58.90	5	65.9	10	77.4
5KP51A	5KP51CA	51.0	56.70	62.70	5	61.9	10	82.4

### PACKAGE INFORMATION

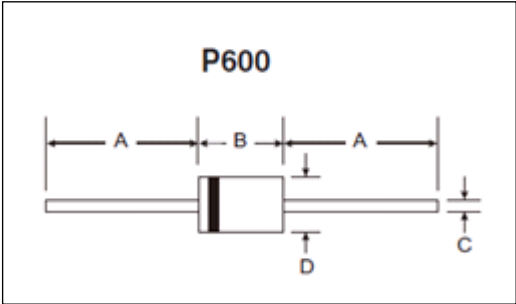


P600		
Dim	Min	Max
A	25.40	--
B	8.50	9.53
C	1.22	1.32
D	8.6	9.1
All Dimensions In mm		



Part Number		Reverse Stand-Off Voltage $V_{RWM}$ (V)	Breakdown Voltage $V_{BR}$ (V)		Test Current $I_T$ (mA)	Maximum Clamping Voltage @ $I_{PP}$ $V_C$ (V)	Peak Pulse Current $I_{PP}$ (A)	Reverse Leakage @ $V_{RWM}$ $I_R$ ( $\mu$ A)
UNI	BI		MIN.@ $I_T$	MAX.@ $I_T$				
5KP54A	5KP54CA	54.0	60.00	66.30	5	58.6	10	87.1
5KP58A	5KP58CA	58.0	64.40	71.20	5	54.5	10	93.6
5KP60A	5KP60CA	60.0	66.70	73.70	5	52.7	10	96.8
5KP64A	5KP64CA	64.0	71.10	78.60	5	49.5	10	103.0
5KP70A	5KP70CA	70.0	77.80	86.00	5	45.1	10	113.0
5KP75A	5KP75CA	75.0	83.30	92.10	5	42.1	10	121.0
5KP78A	5KP78CA	78.0	86.70	95.80	5	40.5	10	126.0
5KP85A	5KP85CA	85.0	94.40	104.00	5	37.2	10	137.0
5KP90A	5KP90CA	90.0	100.00	111.00	5	34.9	10	146.0
5KP100A	5KP100CA	100.0	110.00	123.00	5	31.5	10	162.0
5KP110A	5KP110CA	110.0	122.00	135.00	5	28.8	10	177.0
5KP120A	5KP120CA	120.0	133.00	147.00	5	26.4	10	193.0
5KP130A	5KP130CA	130.0	144.00	159.00	5	24.4	10	209.0
5KP150A	5KP150CA	150.0	167.00	185.00	5	21.0	10	243.0
5KP160A	5KP160CA	160.0	178.00	197.00	5	19.7	10	259.0
5KP170A	5KP170CA	170.0	189.00	209.00	5	18.5	10	275.0
5KP180A	5KP180CA	180.0	200.00	221.00	5	17.5	10	292.0
5KP190A	5KP190CA	190.0	211.00	233.00	5	16.5	10	310.0
5KP200A	5KP200CA	200.0	222.00	246.00	5	15.5	10	329.2
5KP210A	5KP210CA	210.0	233.00	258.00	5	14.6	10	349.5
5KP220A	5KP220CA	220.0	244.00	270.00	5	13.7	10	371.1
5KP250A	5KP250CA	250.0	277.00	306.00	5	12.0	10	425.0

PACKAGE INFORMATION

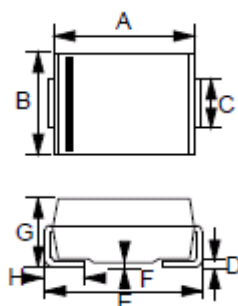


P600		
Dim	Min	Max
A	25.40	--
B	8.50	9.53
C	1.22	1.32
D	8.6	9.1
All Dimensions In mm		

# SMAJ SERIES

Part Number		Marking Code		Reverse Stand- Off Voltage $V_{RWM}$ (V)	Breakdown Voltage $V_{BR}$ (V)		Test Current $I_T$ (mA)	Maximum Clamping Voltage @ $I_{PP}$ $V_c$ (V)	Peak Pulse Current $I_{PP}$ (A)	Reverse Leakage @ $V_{RWM}$ $IR(\mu A)$
UNI	BI	UNI	BI		MIN	MAX				
SMAJ5.0A	SMAJ5.0CA	HE	TE	5	6.4	7.25	10	9.2	43.5	800
SMAJ6.0A	SMAJ6.0CA	HG	TG	6	6.67	7.67	10	10.3	38.8	800
SMAJ6.5A	SMAJ6.5CA	HK	TK	6.5	7.22	8.3	10	11.2	35.7	500
SMAJ7.0A	SMAJ7.0CA	HM	TM	7	7.78	8.95	10	12	33.3	200
SMAJ7.5A	SMAJ7.5CA	HP	TP	7.5	8.33	9.58	1	12.9	31	100
SMAJ8.0A	SMAJ8.0CA	HR	TR	8	8.89	10.23	1	13.6	29.4	50
SMAJ8.5A	SMAJ8.5CA	HT	TT	8.5	9.44	10.82	1	14.4	27.8	20
SMAJ9.0A	SMAJ9.0CA	HV	TV	9	10	11.5	1	15.4	26	10
SMAJ10A	SMAJ10CA	HX	TX	10	11.1	12.8	1	17	23.5	5
SMAJ11A	SMAJ11CA	HZ	TZ	11	12.2	14	1	18.2	22	5
SMAJ12A	SMAJ12CA	IE	UE	12	13.3	15.3	1	19.9	20.1	5
SMAJ13A	SMAJ13CA	IG	UG	13	14.4	16.5	1	21.5	18.6	5
SMAJ14A	SMAJ14CA	IK	UK	14	15.6	17.9	1	23.2	17.2	5
SMAJ15A	SMAJ15CA	IM	UM	15	16.7	19.2	1	24.4	16.4	5
SMAJ16A	SMAJ16CA	IP	UP	16	17.8	20.5	1	26	15.4	5
SMAJ17A	SMAJ17CA	IR	UR	17	18.9	21.7	1	27.6	14.5	5
SMAJ18A	SMAJ18CA	IT	UT	18	20	23.3	1	29.2	13.7	5
SMAJ20A	SMAJ20CA	IV	UV	20	22.2	25.5	1	32.4	12.3	5
SMAJ22A	SMAJ22CA	IX	UX	22	24.4	28	1	35.5	11.3	5
SMAJ24A	SMAJ24CA	IZ	UZ	24	26.7	30.7	1	38.9	10.3	5
SMAJ26A	SMAJ26CA	JE	VE	26	28.9	33.2	1	42.1	9.5	5
SMAJ28A	SMAJ28CA	JG	VG	28	31.1	35.8	1	45.4	8.8	5
SMAJ30A	SMAJ30CA	JK	VK	30	33.3	38.3	1	48.4	8.3	5
SMAJ33A	SMAJ33CA	JM	VM	33	36.7	42.2	1	53.3	7.5	5
SMAJ36A	SMAJ36CA	JP	VP	36	40	46	1	58.1	6.9	5
SMAJ40A	SMAJ40CA	JR	VR	40	44.4	51.1	1	64.5	6.2	5
SMAJ43A	SMAJ43CA	JT	VT	43	47.8	54.9	1	69.4	5.8	5
SMAJ45A	SMAJ45CA	JV	VV	45	50	57.5	1	72.7	5.5	5
SMAJ48A	SMAJ48CA	JX	VX	48	53.3	61.3	1	77.4	5.2	5
SMAJ51A	SMAJ51CA	JZ	VZ	51	56.7	65.2	1	82.4	4.9	5

## PACKAGE INFORMATION

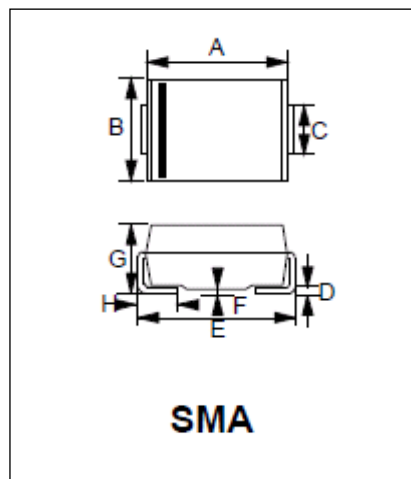


**SMA**

SMA		
Dim	Min	Max
A	3.99	4.50
B	2.54	2.79
C	1.25	1.65
D	0.152	0.305
E	4.93	5.28
F	----	0.203
G	1.98	2.29
H	0.76	1.52
All Dimensions In mm		

Part Number		Marking Code		Reverse Stand- Off Voltage $V_{RWM}$ (V)	Breakdown Voltage $V_{BR}$ (V)		Test Current $I_T$ (mA)	Maximum Clamping Voltage @ $I_{PP}$ $V_c$ (V)	Peak Pulse Current $I_{PP}$ (A)	Reverse Leakage @ $V_{RWM}$ $I_R$ ( $\mu$ A)
					MIN	MAX				
SMAJ54A	SMAJ54CA	RE	WE	54	60	69	1	87.1	4.6	5
SMAJ58A	SMAJ58CA	RG	WG	58	64.4	74.1	1	93.6	4.3	5
SMAJ60A	SMAJ60CA	RK	WK	60	66.7	76.7	1	96.8	4.1	5
SMAJ64A	SMAJ64CA	RM	WM	64	71.1	81.8	1	103	3.9	5
SMAJ70A	SMAJ70CA	RP	WP	70	77.8	89.5	1	113	3.5	5
SMAJ75A	SMAJ75CA	RR	WR	75	83	95.8	1	121	3.3	5
SMAJ78A	SMAJ78CA	RT	WT	78	86	99.7	1	126	3.2	5
SMAJ85A	SMAJ85CA	RV	WV	85	94	108.2	1	137	2.9	5
SMAJ90A	SMAJ90CA	RX	WX	90	100	115.5	1	146	2.7	5
SMAJ100A	SMAJ100CA	RZ	WZ	100	111	128	1	162	2.5	5
SMAJ110A	SMAJ110CA	SE	XE	110	122	140.5	1	177	2.3	5
SMAJ120A	SMAJ120CA	SG	XG	120	133	153	1	193	2.1	5
SMAJ130A	SMAJ130CA	SK	XK	130	144	165.5	1	209	1.9	5
SMAJ150A	SMAJ150CA	SM	XM	150	167	192.5	1	243	1.6	5
SMAJ160A	SMAJ160CA	SP	XP	160	178	205	1	259	1.5	5
SMAJ170A	SMAJ170CA	SR	XR	170	189	217.5	1	275	1.5	5
SMAJ180A	SMAJ180CA	ST	XT	180	200	230.4	1	290	1.4	5
SMAJ190A	SMAJ190CA	SV	XV	190	211	243.2	1	306	1.3	5
SMAJ200A	SMAJ200CA	SX	XX	200	222	256	1	322	1.2	5
SMAJ210A	SMAJ210CA	SZ	XZ	210	233	268.8	1	339	1.2	5
SMAJ220A	SMAJ220CA	ZE	YE	220	244	281.6	1	355	1.1	5
SMAJ250A	SMAJ250CA	ZG	YG	250	278	309	1	403	1	5
SMAJ300A	SMAJ300CA	ZK	YK	300	333	371	1	484	0.8	5
SMAJ350A	SMAJ350CA	ZM	YM	350	389	432	1	565	0.7	5
SMAJ400A	SMAJ400CA	ZP	YP	400	444	494	1	645	0.6	5
SMAJ440A	SMAJ440CA	ZR	YR	440	489	543	1	710	0.6	5

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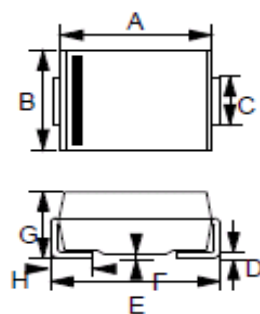


SMA		
Dim	Min	Max
A	3.99	4.50
B	2.54	2.79
C	1.25	1.65
D	0.152	0.305
E	4.93	5.28
F	----	0.203
G	1.98	2.29
H	0.76	1.52
All Dimensions In mm		

# SMBJ SERIES

Part Number		Marking Code		Reverse Stand- Off Voltage $V_{RWM}$ (V)	Breakdown Voltage $V_{BR}$ (V)		Test Current $I_T$ (mA)	Maximum Clamping Voltage @ $I_{PP}$ $V_c$ (V)	Peak Pulse Current $I_{PP}$ (A)	Reverse Leakage @ $V_{RWM}$ $I_R$ ( $\mu$ A)
UNI	BI	UNI	BI		MIN	MAX				
SMBJ5.0A	SMBJ5.0CA	KE	AE	5	6.4	7.25	10	9.2	65.2	800
SMBJ6.0A	SMBJ6.0CA	KG	AG	6	6.67	7.67	10	10.3	58.3	800
SMBJ6.5A	SMBJ6.5CA	KK	AK	6.5	7.22	8.3	10	11.2	53.6	500
SMBJ7.0A	SMBJ7.0CA	KM	AM	7	7.78	8.95	10	12	50	200
SMBJ7.5A	SMBJ7.5CA	KP	AP	7.5	8.33	9.58	1	12.9	46.5	100
SMBJ8.0A	SMBJ8.0CA	KR	AR	8	8.89	10.23	1	13.6	44.1	50
SMBJ8.5A	SMBJ8.5CA	KT	AT	8.5	9.44	10.82	1	14.4	41.7	20
SMBJ9.0A	SMBJ9.0CA	KV	AV	9	10	11.5	1	15.4	39	10
SMBJ10A	SMBJ10CA	KX	AX	10	11.1	12.8	1	17	35.3	5
SMBJ11A	SMBJ11CA	KZ	AZ	11	12.2	14	1	18.2	33	5
SMBJ12A	SMBJ12CA	LE	BE	12	13.3	15.3	1	19.9	30.2	5
SMBJ13A	SMBJ13CA	LG	BG	13	14.4	16.5	1	21.5	27.9	5
SMBJ14A	SMBJ14CA	LK	BK	14	15.6	17.9	1	23.2	25.9	5
SMBJ15A	SMBJ15CA	LM	BM	15	16.7	19.2	1	24.4	24.6	5
SMBJ16A	SMBJ16CA	LP	BP	16	17.8	20.5	1	26	23.1	5
SMBJ17A	SMBJ17CA	LR	BR	17	18.9	21.7	1	27.6	21.7	5
SMBJ18A	SMBJ18CA	LT	BT	18	20	23.3	1	29.2	20.5	5
SMBJ20A	SMBJ20CA	LV	BV	20	22.2	25.5	1	32.4	18.5	5
SMBJ22A	SMBJ22CA	LX	BX	22	24.4	28	1	35.5	16.9	5
SMBJ24A	SMBJ24CA	LZ	BZ	24	26.7	30.7	1	38.9	15.4	5
SMBJ26A	SMBJ26CA	ME	CE	26	28.9	33.2	1	42.1	14.3	5
SMBJ28A	SMBJ28CA	MG	CG	28	31.1	35.8	1	45.4	13.2	5
SMBJ30A	SMBJ30CA	MK	CK	30	33.3	38.3	1	48.4	12.4	5
SMBJ33A	SMBJ33CA	MM	CM	33	36.7	42.2	1	53.3	11.3	5
SMBJ36A	SMBJ36CA	MP	CP	36	40	46	1	58.1	10.3	5
SMBJ40A	SMBJ40CA	MR	CR	40	44.4	51.1	1	64.5	9.3	5
SMBJ43A	SMBJ43CA	MT	CT	43	47.8	54.9	1	69.4	8.6	5
SMBJ45A	SMBJ45CA	MV	CV	45	50	57.5	1	72.7	8.3	5
SMBJ48A	SMBJ48CA	MX	CX	48	53.3	61.3	1	77.4	7.8	5
SMBJ51A	SMBJ51CA	MZ	CZ	51	56.7	65.2	1	82.4	7.3	5

## PACKAGE INFORMATION



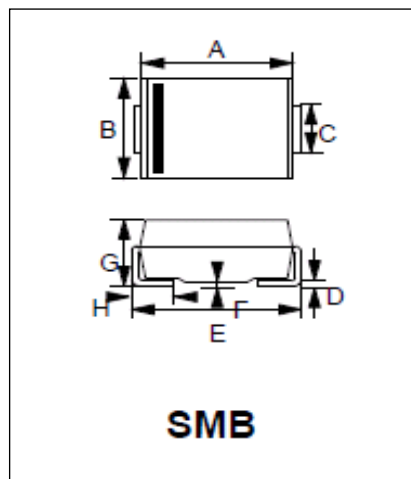
**SMB**

SMB		
Dim	Min	Max
A	4.06	4.57
B	3.30	3.94
C	1.95	2.20
D	0.125	0.305
E	5.21	5.59
F	----	0.203
G	2.13	2.44
H	0.76	1.52
All Dimensions In mm		



Part Number		Marking Code		Reverse Stand- Off Voltage $V_{RWM}$ (V)	Breakdown Voltage $V_{BR}$ (V)		Test Current $I_T$ (mA)	Maximum Clamping Voltage @ $I_{PP}$ $V_C$ (V)	Peak Pulse Current $I_{PP}$ (A)	Reverse Leakage @ $V_{RWM}$ $I_R$ ( $\mu$ A)
					MIN	MAX				
SMBJ54A	SMBJ54CA	NE	DE	54	60	69	1	87.1	6.9	5
SMBJ58A	SMBJ58CA	NG	DG	58	64.4	74.1	1	93.6	6.4	5
SMBJ60A	SMBJ60CA	NK	DK	60	66.7	76.7	1	96.8	6.2	5
SMBJ64A	SMBJ64CA	NM	DM	64	71.1	81.8	1	103	5.8	5
SMBJ70A	SMBJ70CA	NP	DP	70	77.8	89.5	1	113	5.3	5
SMBJ75A	SMBJ75CA	NR	DR	75	83	95.8	1	121	5	5
SMBJ78A	SMBJ78CA	NT	DT	78	86	99.7	1	126	4.8	5
SMBJ85A	SMBJ85CA	NV	DV	85	94	108.2	1	137	4.4	5
SMBJ90A	SMBJ90CA	NX	DX	90	100	115.5	1	146	4.1	5
SMBJ100A	SMBJ100CA	NZ	DZ	100	111	128	1	162	3.7	5
SMBJ110A	SMBJ110CA	PE	EE	110	122	140.5	1	177	3.4	5
SMBJ120A	SMBJ120CA	PG	EG	120	133	153	1	193	3.1	5
SMBJ130A	SMBJ130CA	PK	EK	130	144	165.5	1	209	2.9	5
SMBJ150A	SMBJ150CA	PM	EM	150	167	192.5	1	243	2.5	5
SMBJ160A	SMBJ160CA	PP	EP	160	178	205	1	259	2.3	5
SMBJ170A	SMBJ170CA	PR	ER	170	189	217.5	1	275	2.2	5
SMBJ180A	SMBJ180CA	PT	ET	180	200	230.4	1	290	2.1	5
SMBJ190A	SMBJ190CA	PV	EV	190	211	243.2	1	306	2	5
SMBJ200A	SMBJ200CA	PX	EX	200	222	256	1	322	1.9	5
SMBJ210A	SMBJ210CA	PZ	EZ	210	233	268.8	1	339	1.8	5
SMBJ220A	SMBJ220CA	QE	FE	220	244	281.6	1	355	1.7	5
SMBJ250A	SMBJ250CA	QG	FG	250	278	309	1	403	1.5	5
SMBJ300A	SMBJ300CA	QK	FK	300	333	371	1	484	1.2	5
SMBJ350A	SMBJ350CA	QM	FM	350	389	432	1	565	1.1	5
SMBJ400A	SMBJ400CA	QP	FP	400	444	494	1	645	0.9	5
SMBJ440A	SMBJ440CA	QR	FR	440	489	543	1	710	0.8	5

## PACKAGE INFORMATION

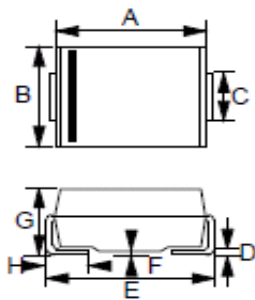


SMB		
Dim	Min	Max
A	4.06	4.57
B	3.30	3.94
C	1.95	2.20
D	0.125	0.305
E	5.21	5.59
F	----	0.203
G	2.13	2.44
H	0.76	1.52
All Dimensions In mm		

# SMCJ SERIES

Part Number		Marking Code		Reverse Stand- Off Voltage $V_{RWM}$ (V)	Breakdown Voltage $V_{BR}$ (V)		Test Current $I_T$ (mA)	Maximum Clamping Voltage @ $I_{PP}$ $V_c$ (V)	Peak Pulse Current $I_{PP}$ (A)	Reverse Leakage @ $V_{RWM}$ $IR(\mu A)$
UNI	BI	UNI	BI		MIN	MAX				
SMCJ5.0A	SMCJ5.0CA	GDE	BDE	5	6.4	7.25	10	9.2	163	800
SMCJ6.0A	SMCJ6.0CA	GDG	BDG	6	6.67	7.67	10	10.3	145.6	800
SMCJ6.5A	SMCJ6.5CA	GDK	BDK	6.5	7.22	8.3	10	11.2	133.9	500
SMCJ7.0A	SMCJ7.0CA	GDM	BDM	7	7.78	8.95	10	12	125	200
SMCJ7.5A	SMCJ7.5CA	GDP	BDP	7.5	8.33	9.58	1	12.9	116.3	100
SMCJ8.0A	SMCJ8.0CA	GDR	BDR	8	8.89	10.23	1	13.6	110.3	50
SMCJ8.5A	SMCJ8.5CA	GDT	BDT	8.5	9.44	10.82	1	14.4	104.2	20
SMCJ9.0A	SMCJ9.0CA	GDV	BDV	9	10	11.5	1	15.4	97.4	10
SMCJ10A	SMCJ10CA	GDX	BDX	10	11.1	12.8	1	17	88.2	5
SMCJ11A	SMCJ11CA	GDZ	BDZ	11	12.2	14	1	18.2	82.4	5
SMCJ12A	SMCJ12CA	GEE	BEE	12	13.3	15.3	1	19.9	75.4	5
SMCJ13A	SMCJ13CA	GEG	BEG	13	14.4	16.5	1	21.5	69.8	5
SMCJ14A	SMCJ14CA	GEK	BEK	14	15.6	17.9	1	23.2	64.7	5
SMCJ15A	SMCJ15CA	GEM	BEM	15	16.7	19.2	1	24.4	61.5	5
SMCJ16A	SMCJ16CA	GEP	BEP	16	17.8	20.5	1	26	57.7	5
SMCJ17A	SMCJ17CA	GER	BER	17	18.9	21.7	1	27.6	54.3	5
SMCJ18A	SMCJ18CA	GET	BET	18	20	23.3	1	29.2	51.4	5
SMCJ20A	SMCJ20CA	GEV	BEV	20	22.2	25.5	1	32.4	46.3	5
SMCJ22A	SMCJ22CA	GEX	BEX	22	24.4	28	1	35.5	42.3	5
SMCJ24A	SMCJ24CA	GEZ	BEZ	24	26.7	30.7	1	38.9	38.6	5
SMCJ26A	SMCJ26CA	GFE	BFE	26	28.9	33.2	1	42.1	35.6	5
SMCJ28A	SMCJ28CA	GFG	BFG	28	31.1	35.8	1	45.4	33	5
SMCJ30A	SMCJ30CA	GFK	BFK	30	33.3	38.3	1	48.4	31	5
SMCJ33A	SMCJ33CA	GFM	BFM	33	36.7	42.2	1	53.3	28.1	5
SMCJ36A	SMCJ36CA	GFP	BFP	36	40	46	1	58.1	25.8	5
SMCJ40A	SMCJ40CA	GFR	BFR	40	44.4	51.1	1	64.5	23.3	5
SMCJ43A	SMCJ43CA	GFT	BFT	43	47.8	54.9	1	69.4	21.6	5
SMCJ45A	SMCJ45CA	GFV	BFV	45	50	57.5	1	72.7	20.6	5
SMCJ48A	SMCJ48CA	GEK	BEK	48	53.3	61.3	1	77.4	19.4	5
SMCJ51A	SMCJ51CA	GEM	BEM	51	56.7	65.2	1	82.4	18.2	5

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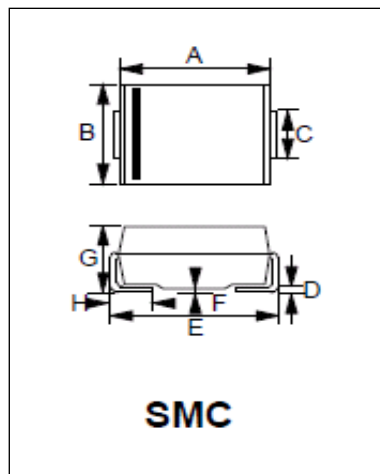


SMC

SMC		
Dim	Min	Max
A	6.60	7.11
B	5.59	6.20
C	2.90	3.20
D	0.125	0.305
E	7.74	8.13
F	----	0.203
G	2.06	2.62
H	0.76	1.52
All Dimensions In mm		

Part Number		Marking Code		Reverse Stand- Off Voltage $V_{RWM}$ (V)	Breakdown Voltage $V_{BR}$ (V)		Test Current $I_T$ (mA)	Maximum Clamping Voltage @ $I_{PP}$ $V_C$ (V)	Peak Pulse Current $I_{PP}$ (A)	Reverse Leakage @ $V_{RWM}$ $I_R$ ( $\mu$ A)
					MIN	MAX				
SMCJ54A	SMCJ54CA	GFX	BFX	54	60	69	1	87.1	17.2	5
SMCJ58A	SMCJ58CA	GFZ	BFZ	58	64.4	74.1	1	93.6	16	5
SMCJ60A	SMCJ60CA	GGE	BGE	60	66.7	76.7	1	96.8	15.5	5
SMCJ64A	SMCJ64CA	GGG	BGG	64	71.1	81.8	1	103	14.6	5
SMCJ70A	SMCJ70CA	GGK	BGK	70	77.8	89.5	1	113	13.3	5
SMCJ75A	SMCJ75CA	GGM	BGM	75	83	95.8	1	121	12.4	5
SMCJ78A	SMCJ78CA	GGP	BGP	78	86	99.7	1	126	11.9	5
SMCJ85A	SMCJ85CA	GGR	BGR	85	94	108.2	1	137	10.9	5
SMCJ90A	SMCJ90CA	GGT	BGT	90	100	115.5	1	146	10.3	5
SMCJ100A	SMCJ100CA	GGV	BGV	100	111	128	1	162	9.3	5
SMCJ110A	SMCJ110CA	GGX	BGX	110	122	140.5	1	177	8.5	5
SMCJ120A	SMCJ120CA	GGZ	BGZ	120	133	153	1	193	7.8	5
SMCJ130A	SMCJ130CA	GHE	BHE	130	144	165.5	1	209	7.2	5
SMCJ150A	SMCJ150CA	GHG	BHG	150	167	192.5	1	243	6.2	5
SMCJ160A	SMCJ160CA	GHK	BHK	160	178	205	1	259	5.8	5
SMCJ170A	SMCJ170CA	GHM	BHM	170	189	217.5	1	275	5.5	5
SMCJ180A	SMCJ180CA	GHP	BHP	180	200	230.4	1	290	5.2	5
SMCJ190A	SMCJ190CA	GHR	BHR	190	211	243.2	1	306	4.9	5
SMCJ200A	SMCJ200CA	GHX	BHX	200	222	256	1	322	4.7	5
SMCJ210A	SMCJ210CA	GHZ	BHZ	210	233	268.8	1	339	4.4	5
SMCJ220A	SMCJ220CA	GJE	BJE	220	244	281.6	1	355	4.2	5
SMCJ250A	SMCJ250CA	GJG	BJG	250	278	309	1	403	3.7	5
SMCJ300A	SMCJ300CA	GJK	BJK	300	333	371	1	484	3.1	5
SMCJ350A	SMCJ350CA	GJM	BJM	350	389	432	1	565	2.7	5
SMCJ400A	SMCJ400CA	GJP	BJP	400	444	494	1	645	2.3	5
SMCJ440A	SMCJ440CA	GJR	BJR	440	489	543	1	710	2.1	5

## PACKAGE INFORMATION

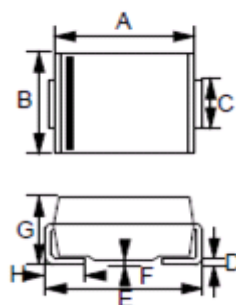


SMC		
Dim	Min	Max
A	6.60	7.11
B	5.59	6.20
C	2.90	3.20
D	0.125	0.305
E	7.74	8.13
F	----	0.203
G	2.06	2.62
H	0.76	1.52
All Dimensions In mm		

# SMDJ SERIES

Part Number		Marking Code		Reverse Stand- Off Voltage $V_{RWM}$ (V)	Breakdown Voltage $V_{BR}$ (V)		Test Current $I_T$ (mA)	Maximum Clamping Voltage @ $I_{PP}$ $V_c$ (V)	Peak Pulse Current $I_{PP}$ (A)	Reverse Leakage @ $V_{RWM}$ $I_R$ ( $\mu$ A)
					MIN	MAX				
SMDJ5.0A	SMDJ5.0CA	HDE	IDE	5	6.4	7.25	10	9.2	326.1	800
SMDJ6.0A	SMDJ6.0CA	HDG	IDG	6	6.67	7.67	10	10.3	291.3	800
SMDJ6.5A	SMDJ6.5CA	HDK	IDK	6.5	7.22	8.3	10	11.2	267.9	500
SMDJ7.0A	SMDJ7.0CA	HDM	IDM	7	7.78	8.95	10	12	250	200
SMDJ7.5A	SMDJ7.5CA	HDP	IDP	7.5	8.33	9.58	1	12.9	232.6	100
SMDJ8.0A	SMDJ8.0CA	HDR	IDR	8	8.89	10.23	1	13.6	220.6	50
SMDJ8.5A	SMDJ8.5CA	HDT	IDT	8.5	9.44	10.82	1	14.4	208.3	20
SMDJ9.0A	SMDJ9.0CA	HDV	IDV	9	10	11.5	1	15.4	194.8	10
SMDJ10A	SMDJ10CA	HDX	IDX	10	11.1	12.8	1	17	176.5	5
SMDJ11A	SMDJ11CA	HDZ	IDZ	11	12.2	14	1	18.2	164.8	5
SMDJ12A	SMDJ12CA	HEE	IEE	12	13.3	15.3	1	19.9	150.8	5
SMDJ13A	SMDJ13CA	HEG	IEG	13	14.4	16.5	1	21.5	139.5	5
SMDJ14A	SMDJ14CA	HEK	IEK	14	15.6	17.9	1	23.2	129.3	5
SMDJ15A	SMDJ15CA	HEM	IEM	15	16.7	19.2	1	24.4	123	5
SMDJ16A	SMDJ16CA	HEP	IEP	16	17.8	20.5	1	26	115.4	5
SMDJ17A	SMDJ17CA	HER	IER	17	18.9	21.7	1	27.6	108.7	5
SMDJ18A	SMDJ18CA	HET	IET	18	20	23.3	1	29.2	102.7	5
SMDJ20A	SMDJ20CA	HEV	IEV	20	22.2	25.5	1	32.4	92.6	5
SMDJ22A	SMDJ22CA	HEX	IEX	22	24.4	28	1	35.5	84.5	5
SMDJ24A	SMDJ24CA	HEZ	IEZ	24	26.7	30.7	1	38.9	77.1	5
SMDJ26A	SMDJ26CA	HFE	IFE	26	28.9	33.2	1	42.1	71.3	5
SMDJ28A	SMDJ28CA	HFG	IFG	28	31.1	35.8	1	45.4	66.1	5
SMDJ30A	SMDJ30CA	HFK	IFK	30	33.3	38.3	1	48.4	62	5
SMDJ33A	SMDJ33CA	HFM	IFM	33	36.7	42.2	1	53.3	56.3	5
SMDJ36A	SMDJ36CA	HFP	IFP	36	40	46	1	58.1	51.6	5
SMDJ40A	SMDJ40CA	HFR	IFR	40	44.4	51.1	1	64.5	46.5	5
SMDJ43A	SMDJ43CA	HFT	IFT	43	47.8	54.9	1	69.4	43.2	5
SMDJ45A	SMDJ45CA	HFV	IFV	45	50	57.5	1	72.7	41.3	5
SMDJ48A	SMDJ48CA	HFX	IFX	48	53.3	61.3	1	77.4	38.8	5
SMDJ51A	SMDJ51CA	HFZ	IFZ	51	56.7	65.2	1	82.4	36.4	5

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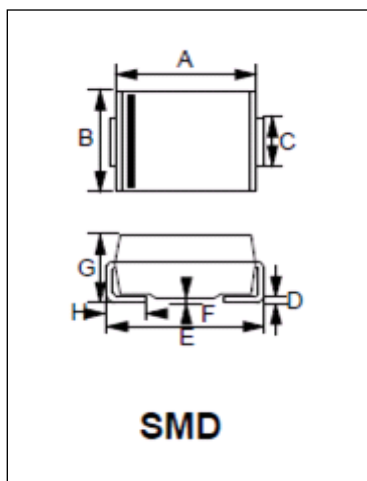


**SMD**

SMD		
Dim	Min	Max
A	6.60	7.11
B	5.59	6.22
C	2.90	3.20
D	0.125	0.305
E	7.75	8.13
F	----	0.203
G	2.06	2.62
H	0.76	1.52
All Dimensions In mm		

Part Number		Marking Code		Reverse Stand- Off Voltage $V_{RWM}$ (V)	Breakdown Voltage $V_{BR}$ (V)		Test Current $I_T$ (mA)	Maximum Clamping Voltage @ $I_{PP}$ $V_c$ (V)	Peak Pulse Current $I_{PP}$ (A)	Reverse Leakage @ $V_{RWM}$ $I_R$ ( $\mu$ A)
					MIN	MAX				
SMDJ54A	SMDJ54CA	HGE	IGE	54	60	69	1	87.1	34.4	5
SMDJ58A	SMDJ58CA	HGG	IGG	58	64.4	74.1	1	93.6	32.1	5
SMDJ60A	SMDJ60CA	HGK	IGK	60	66.7	76.7	1	96.8	31	5
SMDJ64A	SMDJ64CA	HGM	IGM	64	71.1	81.8	1	103	29.1	5
SMDJ70A	SMDJ70CA	HGP	IGP	70	77.8	89.5	1	113	26.5	5
SMDJ75A	SMDJ75CA	HGR	IGR	75	83	95.8	1	121	24.8	5
SMDJ78A	SMDJ78CA	HGT	IGT	78	86	99.7	1	126	23.8	5
SMDJ85A	SMDJ85CA	HGV	IGV	85	94	108.2	1	137	21.9	5
SMDJ90A	SMDJ90CA	HGX	IGX	90	100	115.5	1	146	20.5	5
SMDJ100A	SMDJ100CA	HGZ	IGZ	100	111	128	1	162	18.5	5
SMDJ110A	SMDJ110CA	HHE	IHE	110	122	140.5	1	177	16.9	5
SMDJ120A	SMDJ120CA	HHG	IHG	120	133	153	1	193	15.5	5
SMDJ130A	SMDJ130CA	HHK	IHK	130	144	165.5	1	209	14.4	5
SMDJ150A	SMDJ150CA	HHM	IHM	150	167	192.5	1	243	12.3	5
SMDJ160A	SMDJ160CA	HHP	IHP	160	178	205	1	259	11.6	5
SMDJ170A	SMDJ170CA	HHR	IHR	170	189	217.5	1	275	10.9	5

## PACKAGE INFORMATION

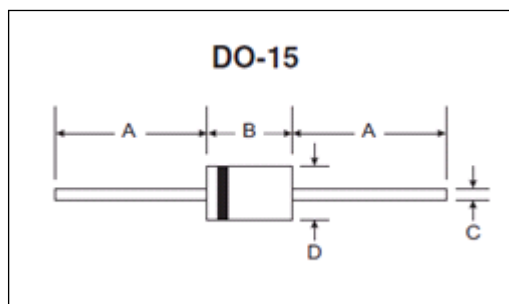


SMD		
Dim	Min	Max
A	6.60	7.11
B	5.59	6.22
C	2.90	3.20
D	0.125	0.305
E	7.75	8.13
F	----	0.203
G	2.06	2.62
H	0.76	1.52
All Dimensions In mm		

# SAC SERIES

Part Number	Reverse Stand-Off Voltage	Maximum Reverse Leakage @ $V_{RMW}$	Breakdown Voltage MIN. @ $I_T$	Test Current	Maximum Clamping Voltage @ $I_{PP}=5.0A$	Peak Pulse Current	Working Inverse Blocking Voltage	Inverse Blocking Leakage @ $V_{WIB}$	Peak Inverse Blocking Voltage	Maximum Junction Capacitance @ 0 Volts
	$V_{RMW}(V)$	$I_R(\mu A)$	$V_{BR MIN}(V)$	$I_T (mA)$	$V_C(V)$	$I_{PP}(A)$	$V_{WIB}(V)$	$I_{IB} (mA)$	$V_{PIR}(V)$	$C_j (pF)$
SAC5.0	5	300	7.6	1	10	44	75	1	100	50
SAC6.0	6	300	7.9	1	11.2	41	75	1	100	50
SAC7.0	7	300	8.33	1	12.6	38	75	1	100	50
SAC8.0	8	100	8.89	1	13.4	36	75	1	100	50
SAC8.5	8.5	50	9.44	1	14	34	75	1	100	50
SAC10	10	5	11.1	1	16.3	29	75	1	100	50
SAC12	12	1	13.3	1	19	25	75	1	100	50
SAC15	15	1	16.7	1	23.6	20	75	1	100	50
SAC18	18	1	20	1	28.8	15	75	1	100	50
SAC22	22	1	24.4	1	35.4	14	75	1	100	50
SAC26	26	1	28.9	1	42.3	11.1	75	1	100	50
SAC30	30	1	33.3	1	48.6	10	75	1	100	50
SAC36	36	1	40	1	60	8.6	75	1	100	50
SAC45	45	1	50	1	77	6.8	150	1	100	50
SAC50	50	1	55.5	1	88	5.8	150	1	100	50

## PACKAGE INFORMATION

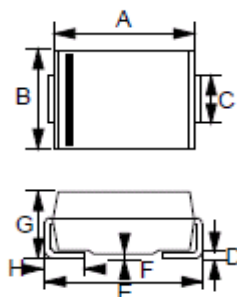


DO-15		
Dim	Min	Max
A	25.40	--
B	5.50	7.62
C	0.686	0.889
D	2.60	3.60
All Dimensions In mm		

# SLCA SERIES

Part Number	Reverse Stand-Off Voltage	Maximum Reverse Leakage @V <sub>RMW</sub>	Breakdown Voltage MIN. @I <sub>T</sub>	Test Current	Maximum Clamping Voltage @ I <sub>PP</sub> =5.0A	Peak Pulse Current	Working Inverse Blocking Voltage	Inverse Blocking Leakage @ V <sub>WIB</sub>	Peak Inverse Blocking Voltage	Maximum Junction Capacitance @ 0 Volts
	V <sub>RMW</sub> (V)	I <sub>R</sub> (uA)	V <sub>BR</sub> MIN(V)	I <sub>T</sub> (mA)	V <sub>C</sub> (V)	I <sub>PP</sub> (A)	V <sub>WIB</sub> (V)	I <sub>IB</sub> (mA)	V <sub>PIR</sub> (V)	C <sub>j</sub> (pF)
SLCA5.0	5	300	7.6	1	10	50	75	1	100	30
SLCA6.0	6	300	7.9	1	11.2	45	75	1	100	30
SLCA7.0	7	300	8.33	1	12.6	40	75	1	100	30
SLCA8.0	8	100	8.89	1	13.4	37	75	1	100	30
SLCA8.5	8.5	50	9.44	1	14	36	75	1	100	30
SLCA10	10	5	11.1	1	16.3	31	75	1	100	30
SLCA12	12	1	13.3	1	19	26	75	1	100	30
SLCA15	15	1	16.7	1	23.6	21	75	1	100	30
SLCA18	18	1	20	1	28.8	17	75	1	100	30
SLCA22	22	1	24.4	1	35.4	14	75	1	100	30
SLCA26	26	1	28.9	1	42.3	12	75	1	100	30
SLCA30	30	1	33.3	1	48.6	10	75	1	100	30
SLCA36	36	1	40	1	60	8	75	1	100	30
SLCA45	45	1	50	1	77	6	150	1	100	30
SLCA50	50	1	55.5	1	88	6	150	1	100	30

## PACKAGE INFORMATION



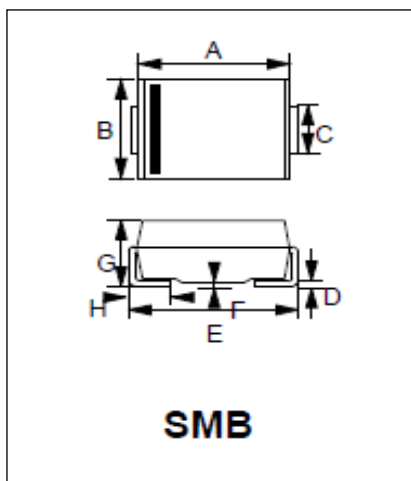
**SMA**

SMA		
Dim	Min	Max
A	3.99	4.50
B	2.54	2.79
C	1.25	1.65
D	0.152	0.305
E	4.93	5.28
F	----	0.203
G	1.98	2.29
H	0.76	1.52
All Dimensions In mm		

# SLCB SERIES

Part Number	Reverse Stand-Off Voltage	Breakdown Voltage MIN. @I <sub>T</sub>	Breakdown Voltage MAX. @I <sub>T</sub>	Test Current	Maximum Clamping Voltage @ I <sub>PP</sub>	Peak Pulse Current	Reverse Leakage @V <sub>RMW</sub>	Working Inverse Blocking Voltage	Maximum Junction Capacitance @ 0 Volts
	V <sub>RMW</sub> (V)	V <sub>BR MIN</sub> (V)	V <sub>BR MAX</sub> (V)	I <sub>T</sub> (mA)	V <sub>C</sub> (V)	I <sub>PP</sub> (A)	I <sub>R</sub> (uA)	V <sub>WIB</sub> (V)	C <sub>j</sub> (pF)
SLCB6.5	6.5	7.22	9.14	10	12.3	48.8	1000	75	50
SLCB7.0	7	7.78	9.86	10	13.3	45.1	500	75	50
SLCB7.5	7.5	8.33	10.67	1	14.3	42	250	75	50
SLCB8.0	8	8.89	11.3	1	15	40	100	75	50
SLCB8.5	8.5	9.44	11.92	1	15.9	37.7	50	75	50
SLCB9.0	9	10	12.6	1	16.9	35.5	10	75	50
SLCB10	10	11.1	14.1	1	18.8	31.9	5	75	50
SLCB11	11	12.2	15.4	1	20.1	29.9	5	75	50
SLCB12	12	13.3	16.9	1	22	27.3	5	75	50
SLCB13	13	14.4	18.2	1	23.8	25.2	5	75	50
SLCB14	14	15.6	19.8	1	25.8	23.3	5	75	50
SLCB15	15	16.7	21.1	1	26.9	22.3	5	75	50
SLCB16	16	17.8	22.6	1	28.8	20.8	5	75	50
SLCB17	17	18.9	23.9	1	30.5	19.7	5	75	50
SLCB18	18	20	25.3	1	32.2	18.6	5	75	50
SLCB20	20	22.2	28.1	1	35.8	16.8	5	75	50
SLCB22	22	24.4	30.9	1	39.4	15.2	5	75	50
SLCB24	24	26.7	33.8	1	43	14	5	75	50
SLCB26	26	28.9	36.6	1	46.6	12.9	5	75	50
SLCB28	28	31.1	39.4	1	50	12	5	75	50
SLCB30	30	33.3	42.2	1	53.5	11.2	5	75	50
SLCB33	33	36.7	46.5	1	59	10.2	5	75	50
SLCB36	36	40	50.7	1	64.3	9.3	5	75	50

## PACKAGE INFORMATION

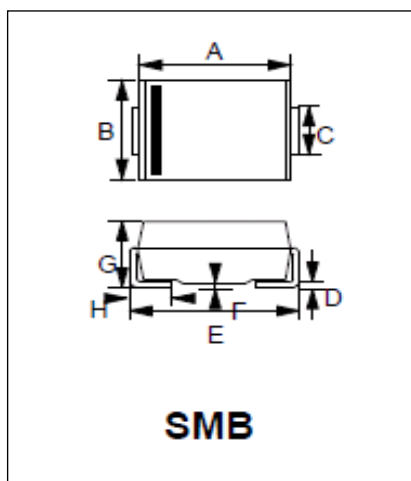


SMB		
Dim	Min	Max
A	4.06	4.57
B	3.30	3.94
C	1.95	2.20
D	0.125	0.305
E	5.21	5.59
F	----	0.203
G	2.13	2.44
H	0.76	1.52
All Dimensions In mm		



Part Number	Reverse Stand-Off Voltage	Breakdown Voltage MIN. @I <sub>T</sub>	Breakdown Voltage MAX. @I <sub>T</sub>	Test Current	Maximum Clamping Voltage @ I <sub>PP</sub>	Peak Pulse Current	Reverse Leakage @V <sub>RMW</sub>	Working Inverse Blocking Voltage	Maximum Junction Capacitance @ 0 Volts
	V <sub>RMW</sub> (V)	V <sub>BR MIN</sub> (V)	V <sub>BR MAX</sub> (V)	I <sub>T</sub> (mA)	V <sub>C</sub> (V)	I <sub>PP</sub> (A)	I <sub>R</sub> (uA)	V <sub>WIB</sub> (V)	C <sub>J</sub> (pF)
SLCB40	40	44.4	56.3	1	71.4	8.4	5	75	50
SLCB43	43	47.8	60.5	1	76.7	7.8	5	75	50
SLCB45	45	50	63.3	1	80.3	7.5	5	75	50
SLCB48	48	53.3	67.5	1	85.5	7	5	75	50
SLCB51	51	56.7	71.8	1	91.1	6.6	5	75	50
SLCB54	54	60	76	1	96.3	6.2	5	75	50
SLCB58	58	64.4	81.6	1	103	5.8	5	75	50
SLCB60	60	66.7	84.5	1	107	5.6	5	75	50
SLCB64	64	71.1	90.1	1	114	5.3	5	75	50
SLCB70	70	77.8	98.6	1	125	4.8	5	75	50
SLCB75	75	83	105.7	1	134	4.5	5	75	50
SLCB78	78	86	109.8	1	139	4.3	5	75	50
SLCB85	85	94	119.2	1	151	4	5	75	50
SLCB90	90	100	126.5	1	160	3.8	5	75	50
SLCB100	100	111	141	1	179	3.4	5	75	50
SLCB110	110	122	154.5	1	196	3.1	5	75	50
SLCB120	120	133	169	1	214	2.8	5	75	50
SLCB130	130	144	182.5	1	231	2.6	5	75	50
SLCB150	150	167	211.5	1	268	2.2	5	75	50
SLCB160	160	178	226	1	287	2.1	5	75	50
SLCB170	170	189	239.5	1	304	2	5	75	50

## PACKAGE INFORMATION



SMB		
Dim	Min	Max
A	4.06	4.57
B	3.30	3.94
C	1.95	2.20
D	0.125	0.305
E	5.21	5.59
F	----	0.203
G	2.13	2.44
H	0.76	1.52
All Dimensions In mm		



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