SUPER FAST RECTIFIERS

REVERSE VOLTAGE - **50** to **600**Volts
FORWARD CURRENT - **16.0** Amperes

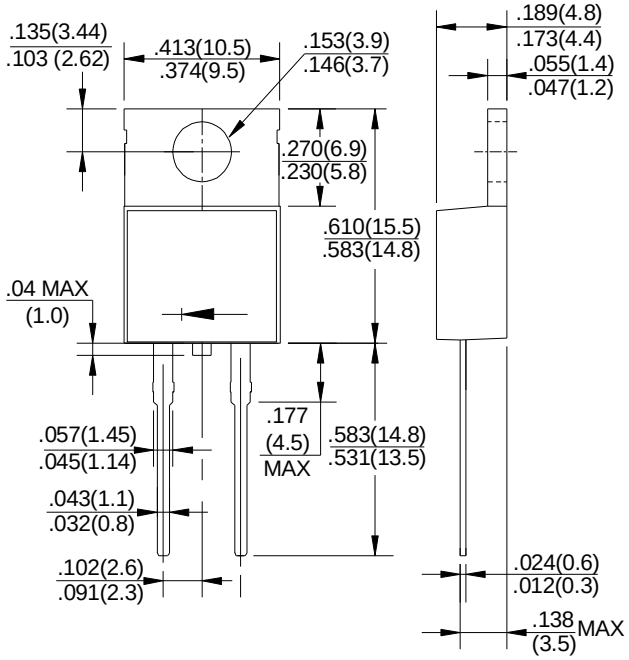
FEATURES

- Super fast switching time for high efficiency
- Low forward voltage drop
  High current capabiltiy
- Low reverse leakage current
- Plastic material has UL flammability classification 94V-0

MECHANICAL DATA

- Case: TO-220AC molded plastic
- Epoxy: UL94V-0 rate flame retadant
- Mounting position :Any
- Weight: 2.24 grams
- polarity:As marked

TO-220AC



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ ambient temperature unless otherwise specified.

Single phase, half wave ,60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	SF 1601	SF 1602	SF 1603	SF 1604	SF 1605	SF 1606	SF 1608	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	600	V
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current @T_A =75 ℃	$I_{(AV)}$	16.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	I_{FSM}	200							A
Peak Forward Voltage at 16.0A DC	V_F	1.0				1.3		1.7	V
Maximum DC Reverse Current @T_J=25℃	I_R	10							μA
at Rated DC Blocking Voltage @T_J=100℃		150							
Maximum Reverse Recovery Time(Note1)	T_{RR}	35							nS
Typical Junction Capacitance (Note2)	C_J	80							pF
Typical Thermal Resistance (Note3)	$R_{\theta JA}$	2.5							℃/W
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to + 150							℃

NOTES:1.Measured with I_F=0.5A,I_R=1A,I_{RR}=0.25A

2.Measured at 1.0 MHZ and applied reverse voltage of 4.0VDC.

3.Thermal resistance junction to ambient

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FIG.1- TYPICAL FORWARD CURRENT DERATING CURVE

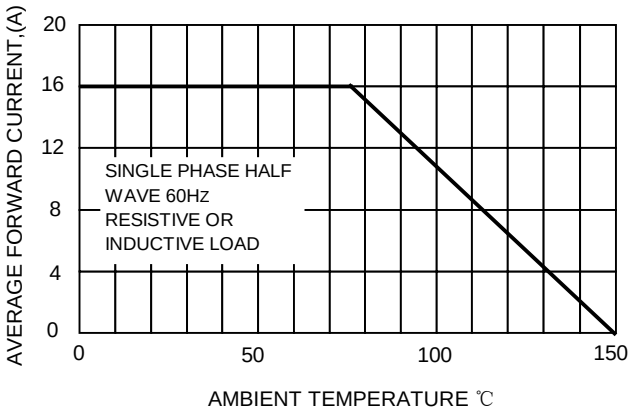


FIG.2-TYPICAL REVERSE
CHARACTERISTICS

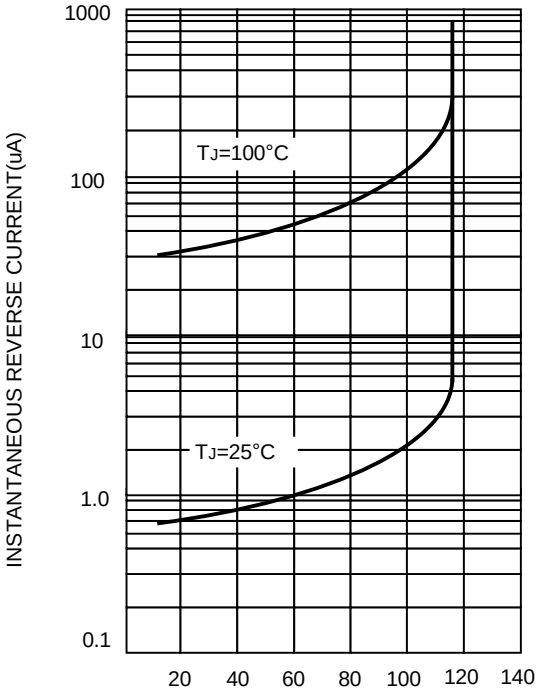


FIG.3-MAXIMUM NON-REPETITVE FORWARD SURGE CURRENT

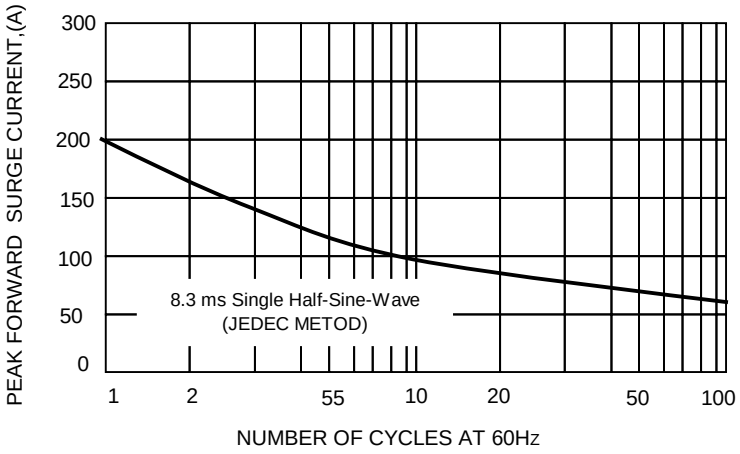


FIG.4-TYPICAL INSTANTAEOUS
FORWARD CHARACTERISTICS

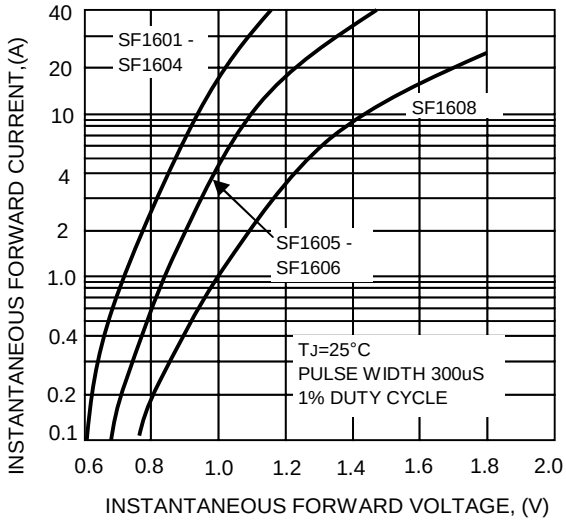
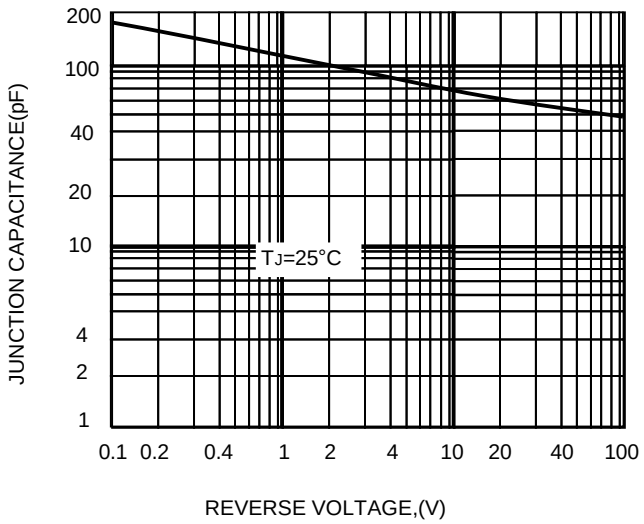


FIG.5-TYPICAL JUNCTION CAPACITANCE



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