

SUPER FAST RECTIFIERS

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

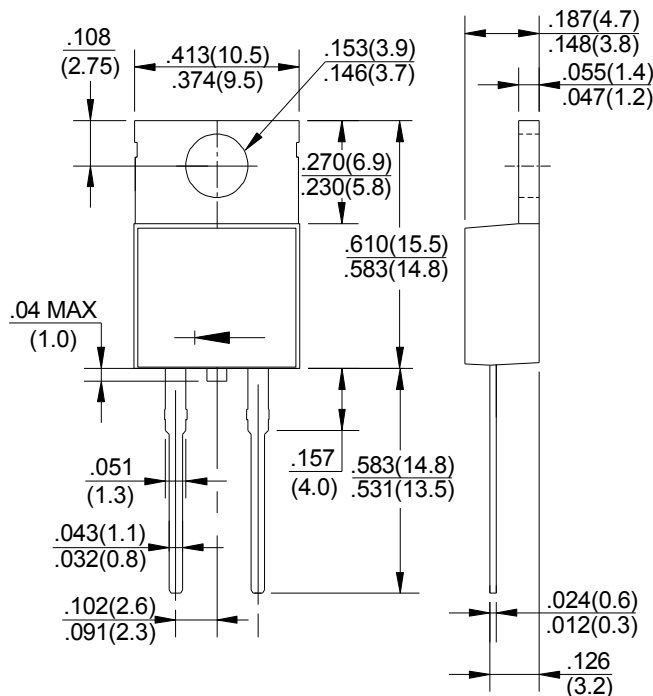
FEATURES

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

MECHANICAL DATA

- Case: TO-220AC molded plastic
- Epoxy: UL94V-0 rate flame retardant
- 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°C 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 °C	I _(AV)	16.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	I _{FSM}	300							A
Peak Forward Voltage at 16.0A DC	V _F	1.0				1.25		1.3	V
Maximum DC Reverse Current @T _J =25°C at Rated DC Blocking Voltage @T _J =100°C	I _R	10 150							μA
Maximum Reverse Recovery Time(Note1)	T _{RR}	35				40		50	nS
Typical Junction Capacitance (Note2)	C _J	80							pF
Typical Thermal Resistance (Note3)	R _{θJA}	2.5							°C/W
Operating and Storage Temperature Range	T _J ,T _{STG}	-55 to + 150							°C

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



FIG.1- TYPICAL FORWARD CURRENT DERATING CURVE

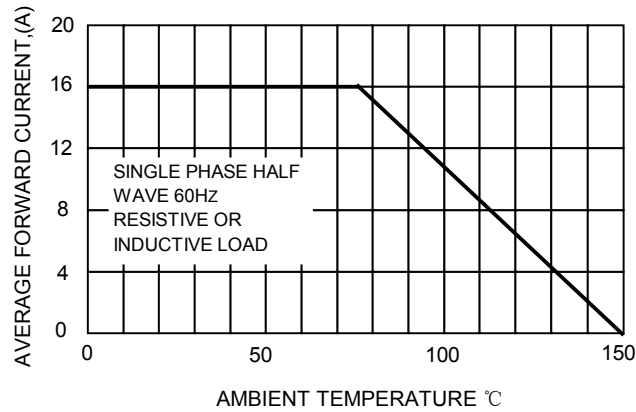


FIG.2-TYPICAL REVERSE CHARACTERISTICS

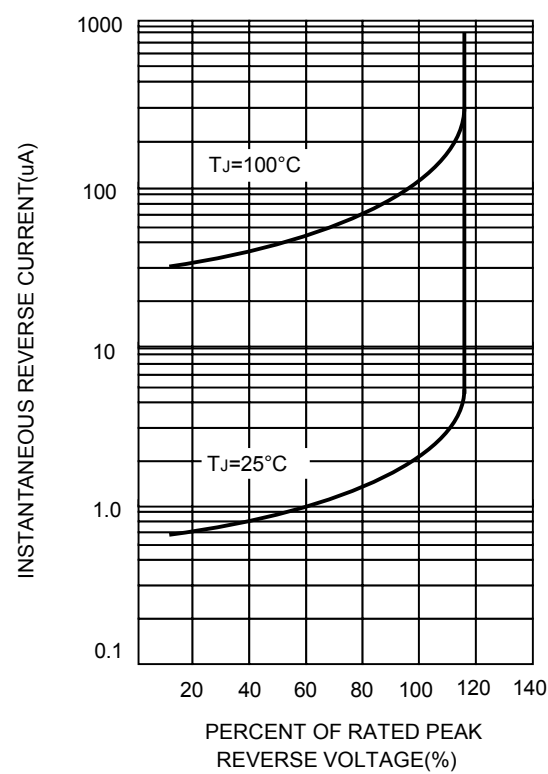


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

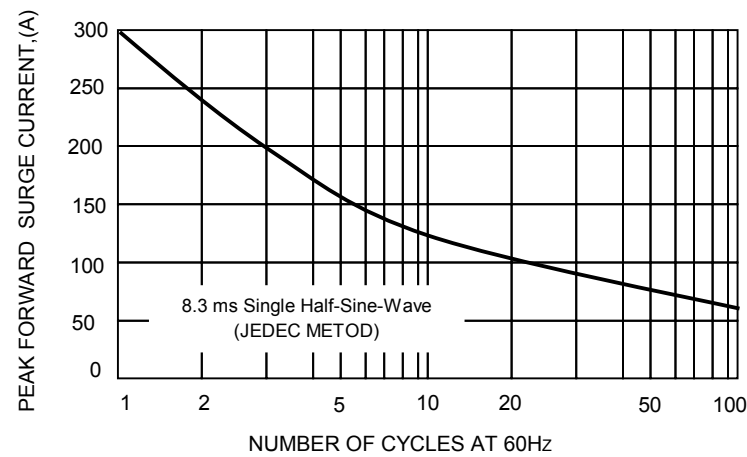


FIG.4-TYPICAL INSTANTAEIOUS FORWARD CHARACTERISTICS

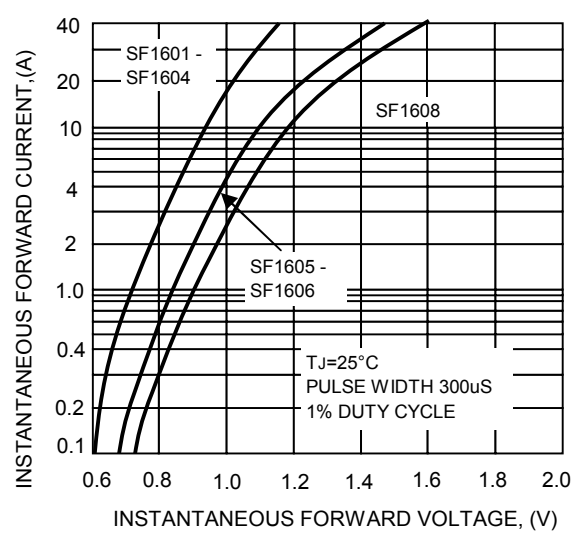


FIG.5-TYPICAL JUNCTION CAPACITANCE

