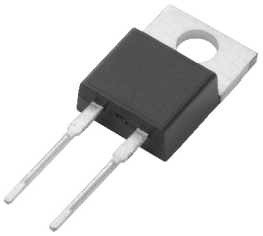
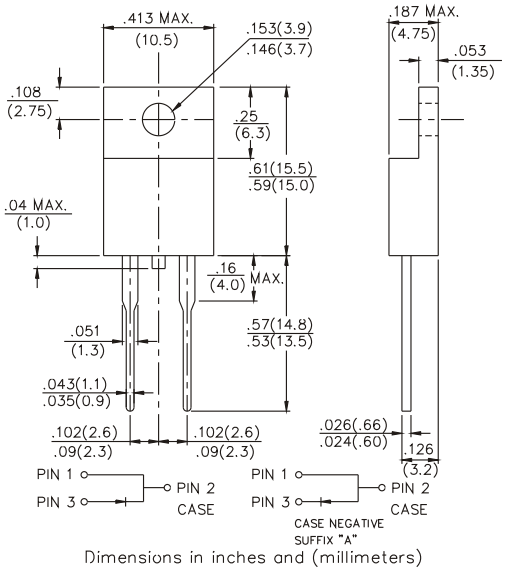
UF1000 thru UF1008

SURFACE MOUNT REVERSE VOLTAGE 50 TO 800 VOLTS

ULTRA FAST RECTIFIERS FORWARD CURRENT -10 AMPERES



TO-220AC



Dimensions in inches and (millimeters)

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O Utilizing Flame Retardant Epoxy Molding Compound
- Exceeds environmental standards of MIL-S-19500/228
- Low power loss, high efficiency
- Low forward voltage, high current capability
- High surge capacity
- Ultra Fast recovery times, high voltage
- High temperature soldering : 260^{O}C / 10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request

MECHANICAL DATA

- Case: TO-220AC moldedplastic
- Terminals: Lead solderable per MIL-STD-202, Method 208
- Polarity: As marked
- Mounting Position: Any
- Weight: 0. ounce, 2.24 gram

MAXIMUM RATIXGS AND ELECTRICAL CHARACTERISTICS @T_A=25°C unless otherwise specified

Ratings at 25 ^{O}C J ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

TYPE NUMBER	SYMBOL	UF1000	UF1001	UF1002	UF1003	UF1004	UF1006	UF1008	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	600	800	V
Maximum RMS Voltage	V_{RMS}	35	70	140	210	280	420	560	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	300	400	600	800	V
Maximum Average Forward Rectified Current .375"(9.5mm) lead length @ Tc=100°C	I_F	10							A
Peak Forward Surge Current, 8.3ms single half sine wave superimposed on rated load(JECEC method)	I_{FSM}	150							A
Maximum Instantaneous Forward Voltage at 10.0A	VF	1.0			1.3		1.7		V
Maximum DC Reverse Current @T_A=25°C	IR	10.0							μA
at Rated DC Blocking Voltage @T_A=125°C		500							μA
Maximum Reverse Recovery Time(Note 1)		50					75		ns
Typical Junctioncap acitance (Note 2)		80					50		pF
Typical Junction Resi stance (Note 2) RθJA		15							°C/W
Operating and Storage Temperature Range T_J,T_{STG}	TSTG	-55 to +150							°C

NOTES:

1. Reverse Recovery Test Conditions: IF=0.5A, IR=1A, Irr=0.25A
2. Measured at 1 MHz and applied reverse voltage of 4.0 VDC
3. Thermal resistance from junction to ambient and from junction to lead length 0.375"(9.5mm) P.C.B. mounted

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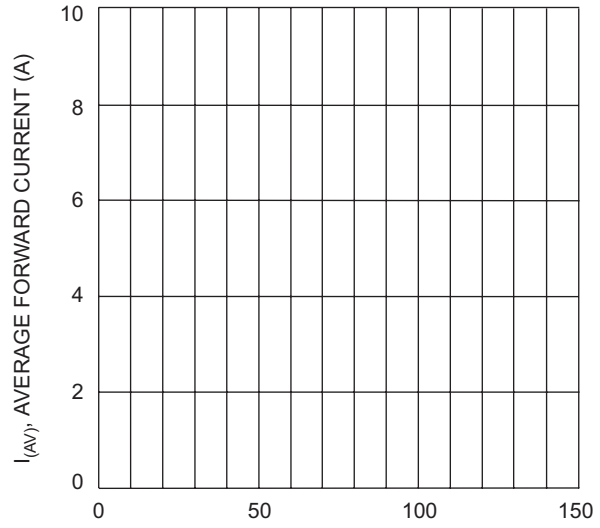

Fig. 1 Forward Current Derating Curve

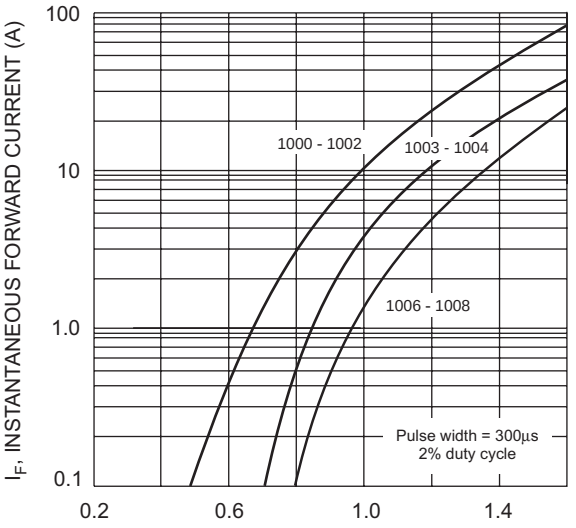

Fig. 2 Typical Forward Characteristics

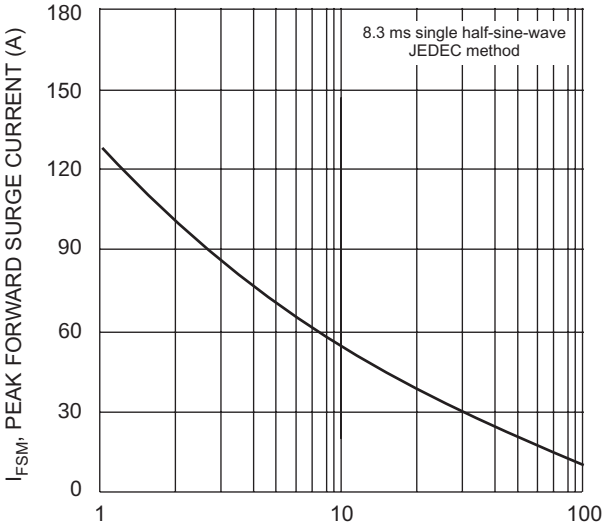

Fig. 3 Max Non-Repetitive Surge Current

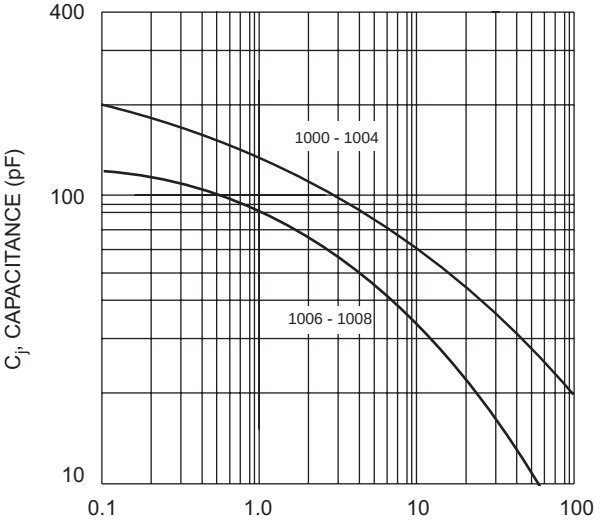

Fig. 4 Typical Junction Capacitance