

DATA SHEET

UF3A~UF3M

SURFACE MOUNT ULTRAFAST RECTIFIER

VOLTAGE 50 to 1000 Volts **CURRENT** 3.0 Amperes

SMC/DO-214AB

Unit: inch (mm)

FEATURES

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Ultrafast recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass passivated junction
- Pb free product are available : 99% Sn can meet Rohs environment substance directive request

MECHANICAL DATA

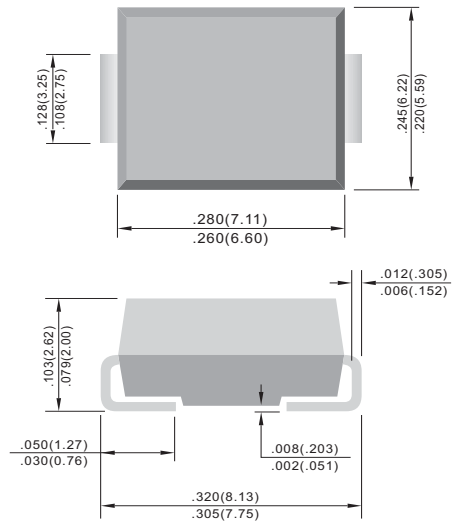
Case: JEDEC DO-214AB molded plastic

Terminals: Solder plated, solderable per MIL-STD-202G, Method 2026

Polarity: Indicated by cathode band

Standard packaging: 16mm tape (EIA-481)

Weight: 0.007 ounce, 0.21 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMETER	SYMBOL	UF3A	UF3B	UF3D	UF3G	UF3J	UF3K	UF3M	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Current .375"(9.5mm) lead length at TL=75°C	I _{AV}	3.0							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I _{FSM}	100							A
Maximum Forward Voltage at 3.0A	V _F	1.0			1.4	1.7			V
Maximum DC Reverse Current at TA=25°C Rated DC Blocking Voltage TA=100°C	I _R	10.0 300							uA
Typical Junction capacitance (Note 2)	C _J	75				63			pF
Typical Thermal Resistance(Note 3)	RθJL	15							°C / W
Maximum Reverse Recovery Time (Note 1)	T _{RR}	50				100			ns
Operating Junction and Storage Temperature Range	T _J ,T _{STG}	-50 TO +150							°C

NOTES:1. Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{rr}=0.25A$

2. Measured at 1 MHz and applied $V_r = 4.0$ volts.

3. 8.0 mm² (.013mm thick) land areas.

RATING AND CHARACTERISTIC CURVES

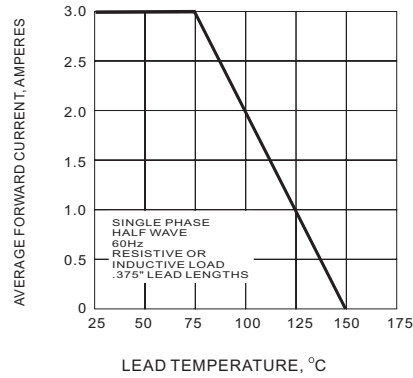


Fig.1 FORWARD CURRENT DERATING CURVE

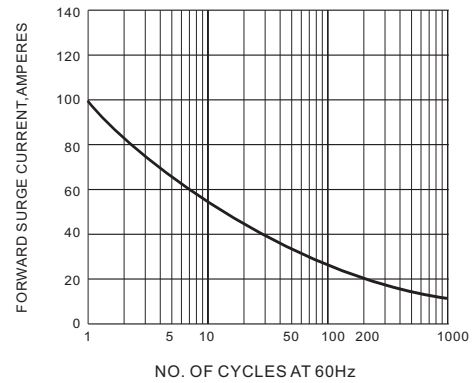


Fig.6 PEAK FORWARD SURGE CURRENT

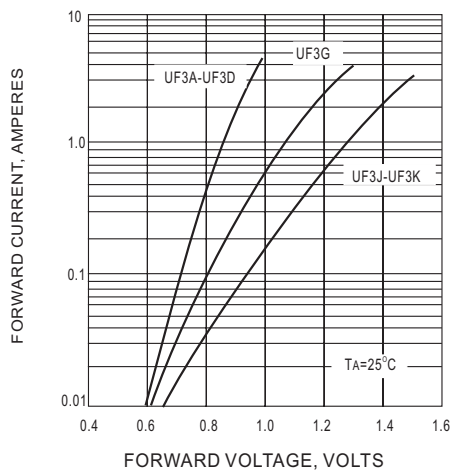


Fig.3 FORWARD CHARACTERISTICS

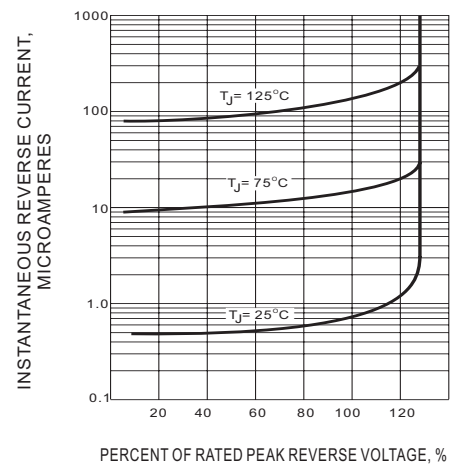


Fig.4 TYPICAL REVERSE CHARACTERISTICS

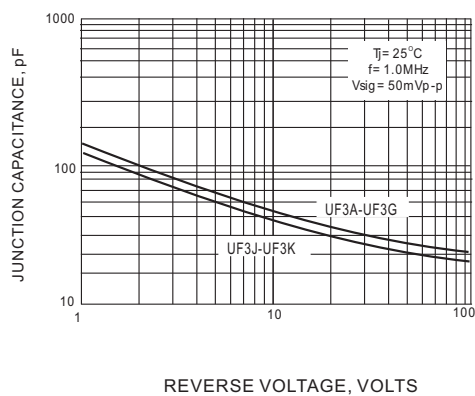


Fig.5 TYPICAL JUNCTION CAPACITANCE