

SUPER FAST RECTIFIERS

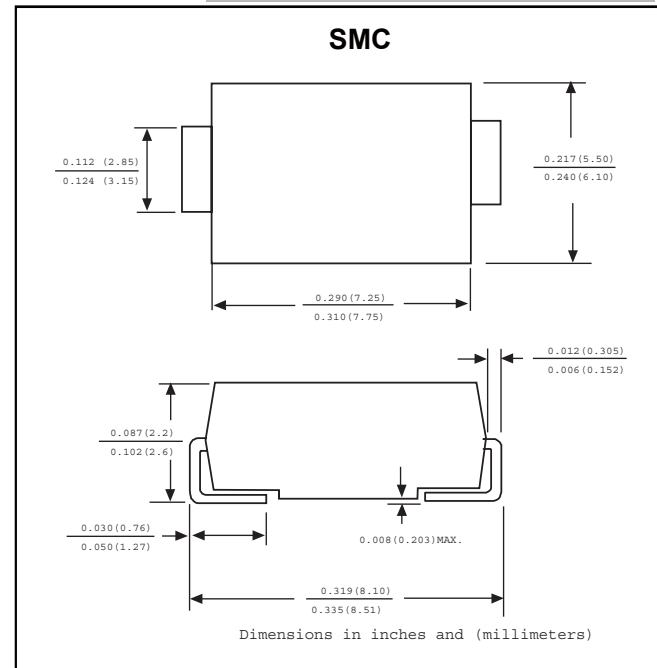
VOLTAGE RANGE: 50--- 1000 V
CURRENT: 3.0 A

FEATURES

- The plastic package carries Underwriters Laboratory
- Flammability Classification 94V-0
- For surface mounted applications
- Fast switching for high efficiency
- Low reverse leakage
- Built-in strain relief, ideal for automated placement
- High forward surge current capability
- High temperature soldering guaranteed:
250 °C / 10 seconds at terminals

MECHANICAL DATA

- Case: JEDEC DO-214AB molded plastic body
- Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted) Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

	SYMBOLS	RS3A	RS3B	RS3D	RS3G	RS3J	RS3K	RS3M	UNITS
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	VOLTS
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	VOLTS
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	VOLTS
Maximum average forward rectified current at T _L =90 °C	I _{AV}	3.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	100.0							Amps
Maximum instantaneous forward voltage at 3.0A	V _F	1.3							Volt
Maximum DC reverse current T _A =25 °C at rated DC blocking voltage	I _R	5.0 50.0							µA
Maximum reverse recovery time T _A =100 °C (NOTE 1)	t _r	150				250	500		ns
Typical junction capacitance (NOTE 2)	C _J	150.0							pF
Typical thermal resistance (NOTE 3)	R _{gJA}	20.0							°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-65 to +150							°C

Note: 1. Reverse recovery condition

I_F=0.5A, dI_F/dt=10A/µs, t_r=100ns, and applied reverse voltage of 4.0V D.C.

3. P.C.B. mounted with 0.6x0.6" (16x16mm) copper pad areas

RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

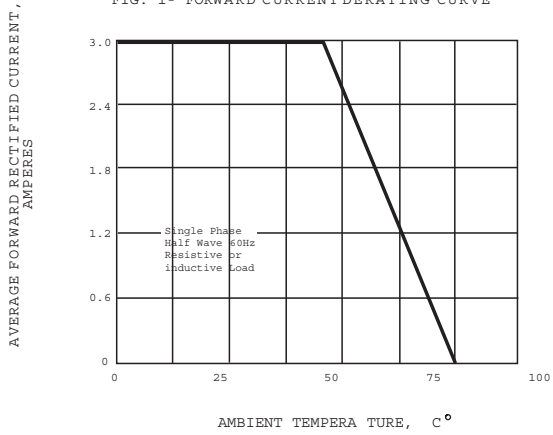


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

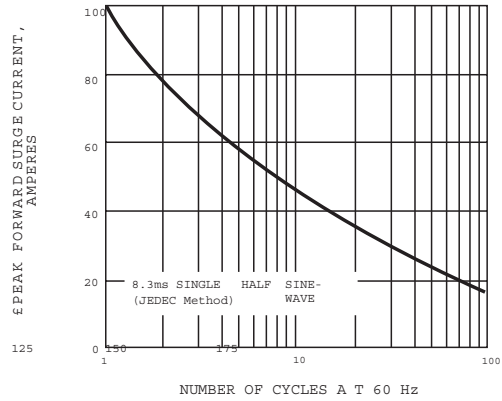


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

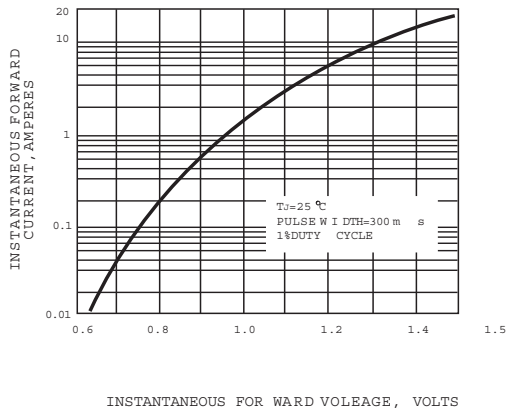


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

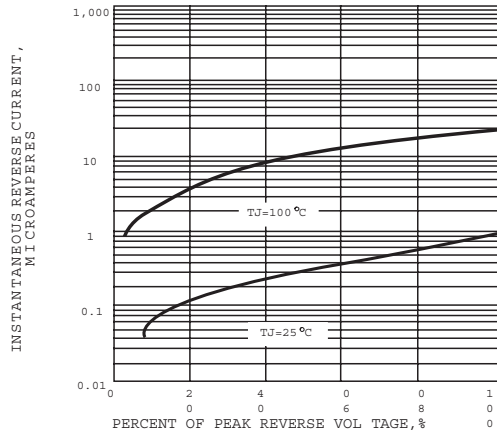


FIG. 5-TYPICAL JUNCTION CAPACITANCE

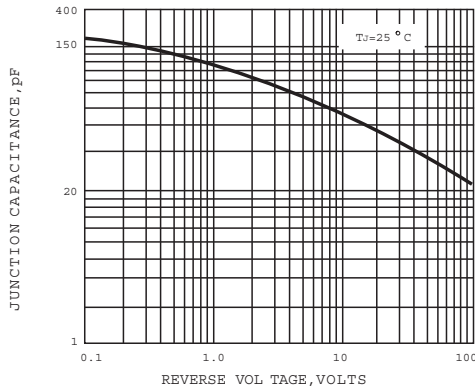


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

