

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE: 60 V
CURRENT: 5.0 A

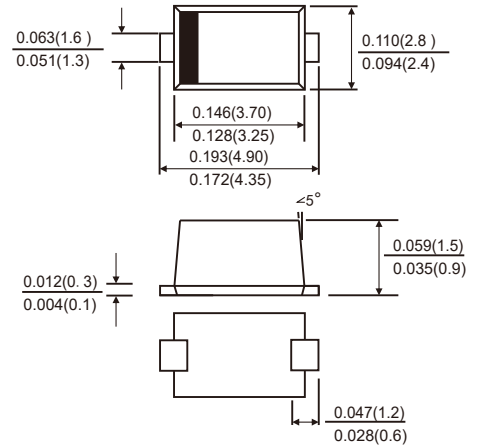
FEATURES

- . Very low forward voltage:0.55V
- . Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- . Metal silicon junction ,majority carrier conduction
- . For surface mount applications
- . Low power loss ,high efficiency
- . High current capability ,Low forward voltage drop
- . Low profile package
- built-in strain relief ,ideal for automated placement
- . For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- . High temperature soldering guaranteed:260 °C/10 seconds at terminals
- . Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

MECHANICAL DATA

- . Case: SMAFL molded plastic body
- . Terminals: Solder Plated, solderable per MIL-STD-750,method 2026
- . Polarity: Color band denotes cathode end
- . Weight: 0.003ounce, 0.093 gram

SMAF



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 by 20%.

	Symbols	SS56AF	Volts
Maximum repetitive peak reverse voltage	V _{RRM}	60	Volts
Maximum RMS voltage	V _{RMS}	42	Volts
Maximum DC blocking voltage	V _{DC}	60	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length (See Fig.1)	I(AV)	5.0	Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	120	Amps
Maximum instantaneous forward voltage (Note 1)	V _F at 3.0 A V _F at 5.0 A	0.5 0.55	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	I _R	T _A =25°C	0.35
		T _A =100°C	30
Typical thermal resistance (Note 2)	R _{θJA}	55.0	°C/W
	R _{θJL}	17.0	
Operating junction temperature range	T _J	-65 to+125	°C
Storage temperature range	T _{STG}	-65 to+150	°C

NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Thermal resistance from junction to ambient.

FIG.1-FORWARD CURRENT DERATING CURVE

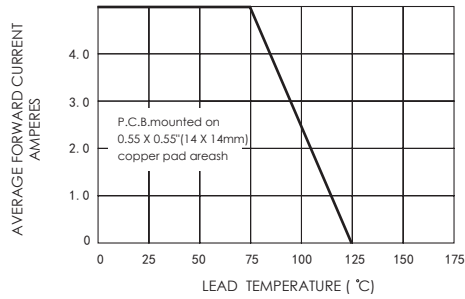


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

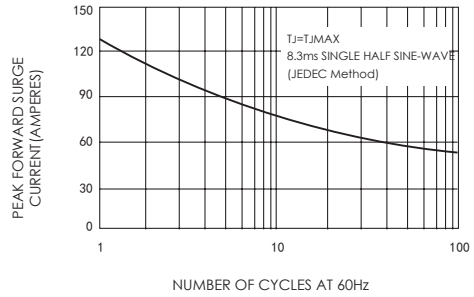


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

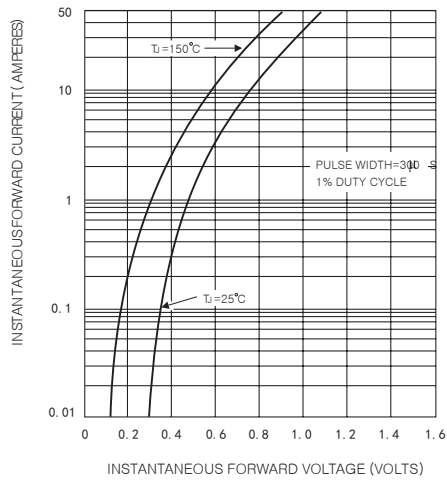


FIG.4-TYPICAL REVERSE CHARACTERISTICS

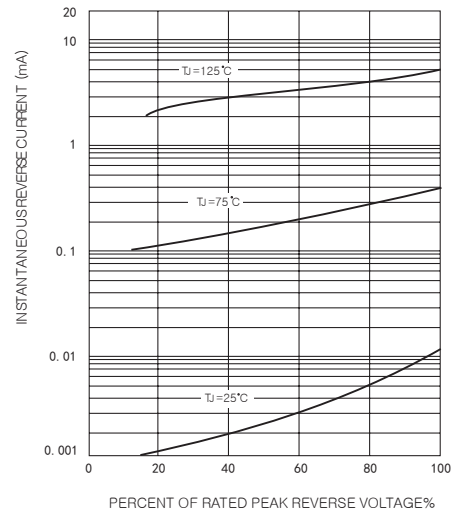


FIG.5-TYPICAL JUNCTION CAPACITANCE

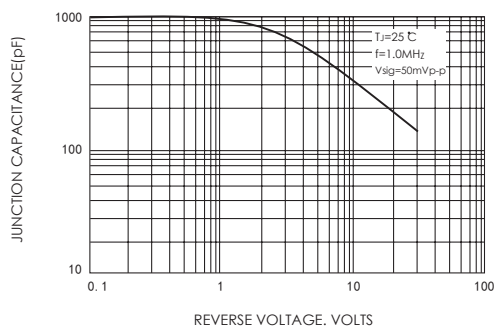


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

