

## SM150 THRU SM160

### TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE - 50 to 60 Volts

CURRENT - 1.0 Ampere

#### FEATURES

- \* Ideal for surface mounted applications
- \* High current capability
- \* Low leakage current for high efficiency

#### MECHANICAL DATA

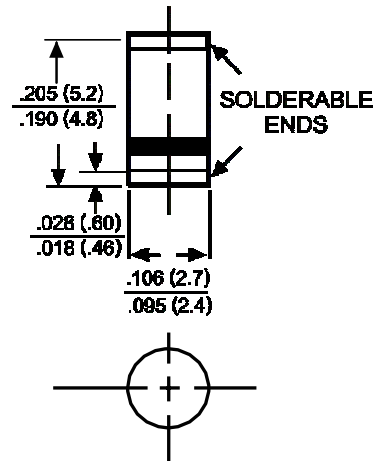
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Solder plated solderable per MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 0.12 gram

#### 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%.



SM-1(DO-213AB)



Dimensions in inches and (millimeters)

	SYMBOL	SM150	SM160	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	50	60	Volts
Maximum RMS Voltage	VRMS	35	42	Volts
Maximum DC Blocking Voltage	VDC	50	60	Volts
Maximum Average Forward Rectified Current at Derating Lead Temperature	IO	1.0		Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	40		Amps
Maximum Instantaneous Forward Voltage at 1.0A DC	VF	.70		Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	IR	@TA = 25°C	1.0	mAmps
		@TA = 100°C	10	
Typical Thermal Resistance (Note 1)	RθJA	75		°C/W
Typical Junction Capacitance (Note 2)	CJ	80		pF
Operating Temperature Range	TJ	-65 to + 150		°C
Storage Temperature Range	TSTG	-65 to + 150		°C

NOTES : 1. Thermal Resistance (Junction to Ambient), .24in<sup>2</sup> (6.0mm<sup>2</sup>) copper pads to each terminal.  
 2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

RATING AND CHARACTERISTIC CURVES ( SM150 THRU SM160 )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

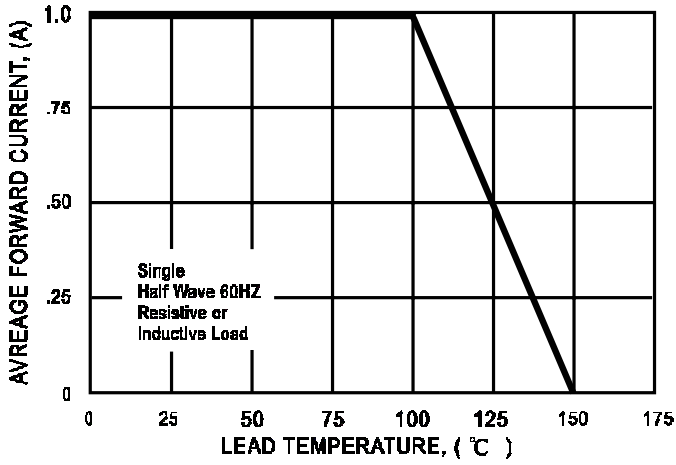


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

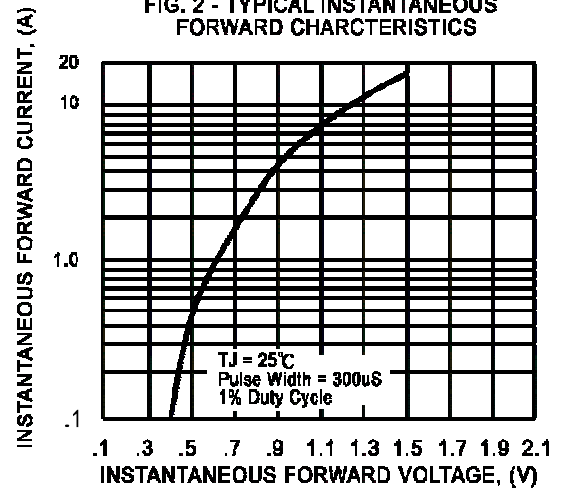


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

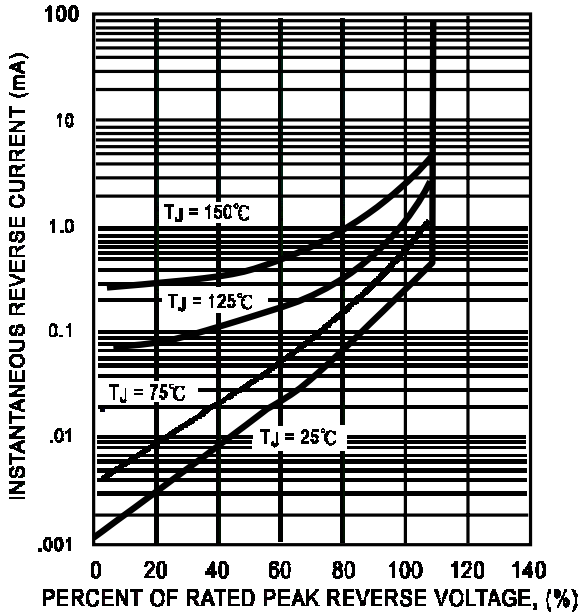


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

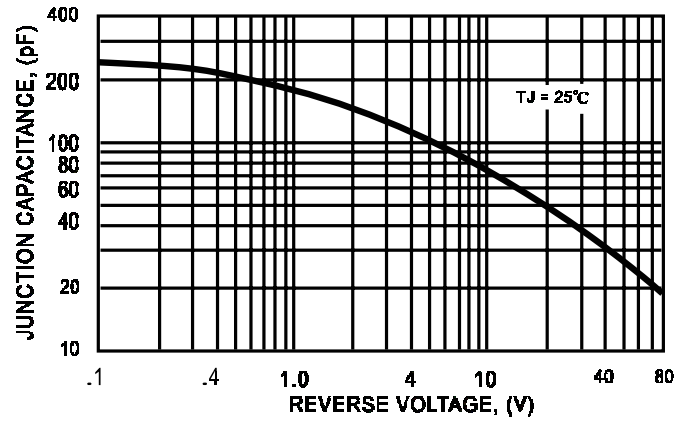


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

