



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

**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

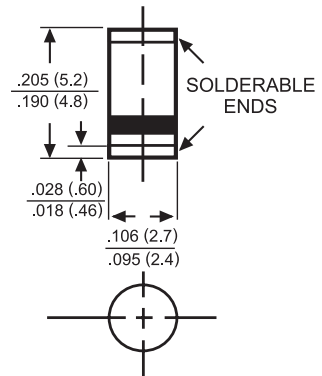
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solder plated solderable per MIL-STD-202E, Method 208 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 0.12 gram

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	V _{RRM}	50	60	Volts
Maximum RMS Voltage	V _{RMS}	35	42	Volts
Maximum DC Blocking Voltage	V _{DC}	50	60	Volts
Maximum Average Forward Rectified Current at Derating Lead Temperature	I _O	1.0		Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	40		Amps
Maximum Instantaneous Forward Voltage at 1.0A DC	V _F	.70		Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	I _R	@ T _A = 25°C	1.0	mAmps
		@ T _A = 100°C	10	
Typical Thermal Resistance (Note 1)	R _{θJA}	75		°C/W
Typical Junction Capacitance (Note 2)	C _J	80		pF
Operating Temperature Range	T _J	-65 to + 150		°C
Storage Temperature Range	T _{STG}	-65 to + 150		°C

NOTES : 1. Thermal Resistance (Junction to Ambient), .24in² (6.0mm²) 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

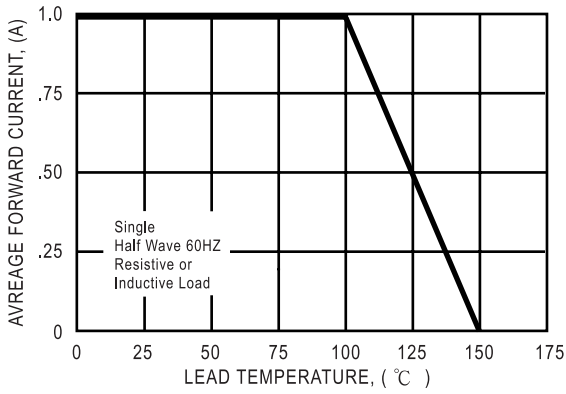


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

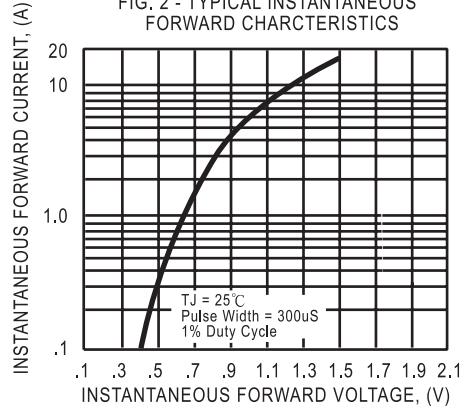


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

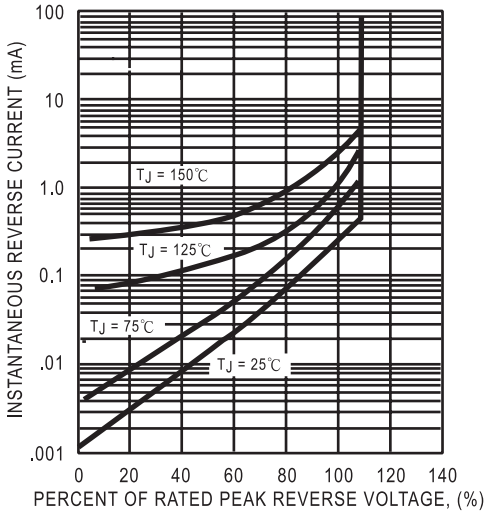


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

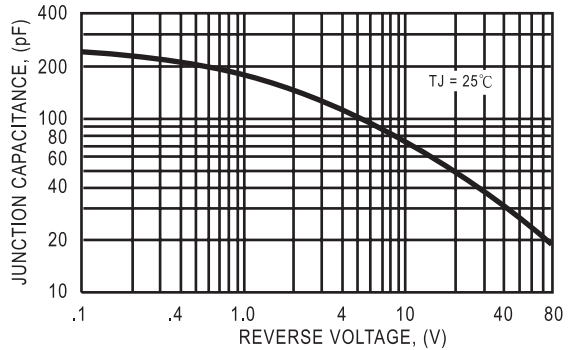
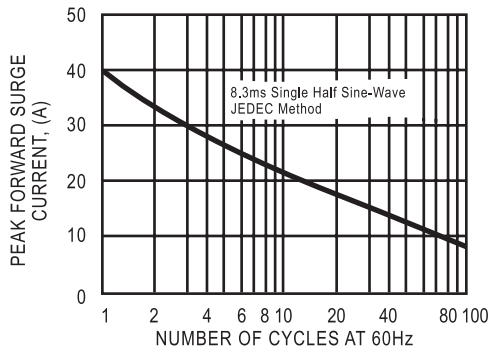


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



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