



# DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

SM220  
THRU  
SM260

## TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE - 20 to 60 Volts

CURRENT - 2.0 Amperes

### FEATURES

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

### MECHANICAL DATA

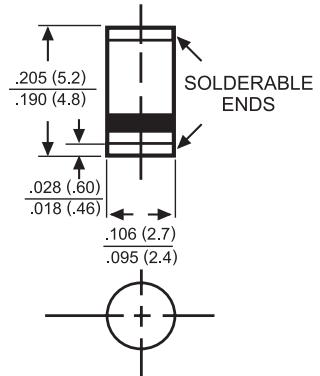
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Solder plated solderable per MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 0.12 gram

### 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	SM220	SM230	SM240	SM250	SM260	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	Volts
Maximum Average Forward Rectified Current at T <sub>A</sub> =90°C	I <sub>O</sub>	2.0					Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	40					Amps
Maximum Instantaneous Forward Voltage at 2.0A DC	V <sub>F</sub>	.45	.55	.60	.75		
Maximum DC Reverse Current at @ T <sub>A</sub> = 25°C	I <sub>R</sub>	2.0					mAmps
Rated DC Blocking Voltage @ T <sub>A</sub> = 100°C		20					
Typical Thermal Resistance (Note1)	R <sub>θJA</sub>	40					°C/W
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	200					pF
Storage Operating Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to + 125					°C

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

RATING AND CHARACTERISTIC CURVES ( SM220 THRU SM260 )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

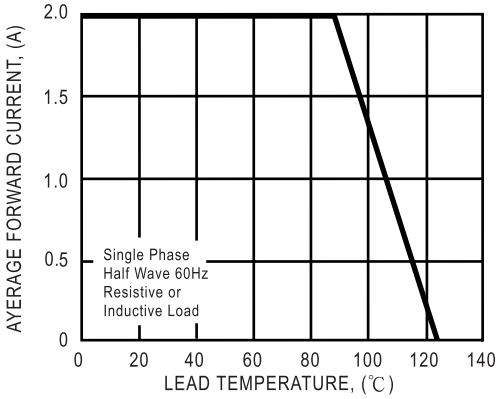


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

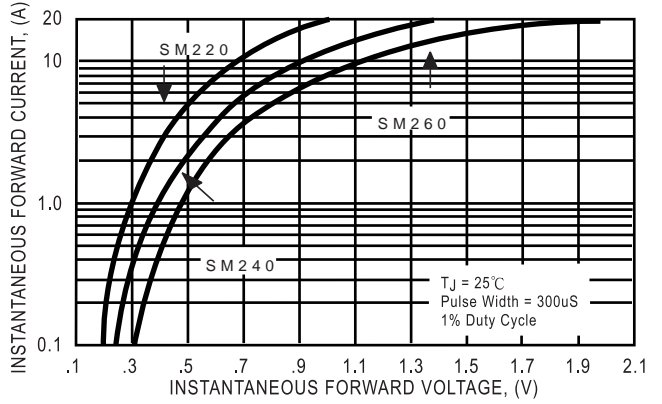


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

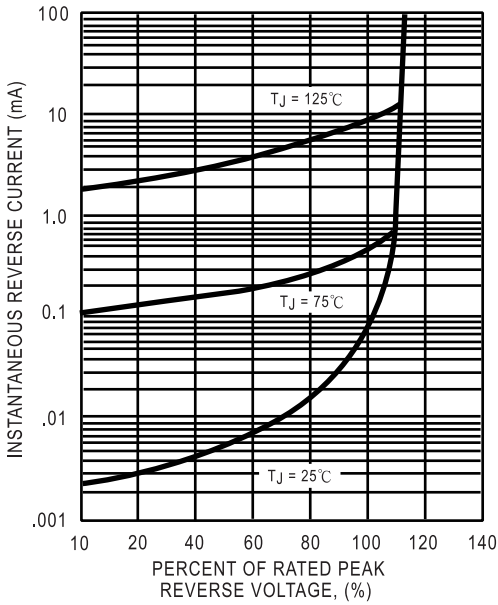


FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

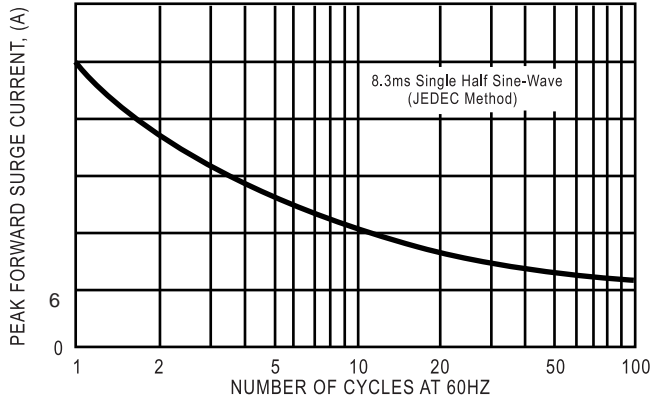


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

