



*DC COMPONENTS CO., LTD.*

RECTIFIER SPECIALISTS

SM220  
THRU  
SM2100

**TECHNICAL SPECIFICATIONS OF SCHOTTKY BARRIER RECTIFIER**

**VOLTAGE RANGE - 20 to 100 Volts**

**CURRENT - 2.0 Amperes**

**FEATURES**

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

**MECHANICAL DATA**

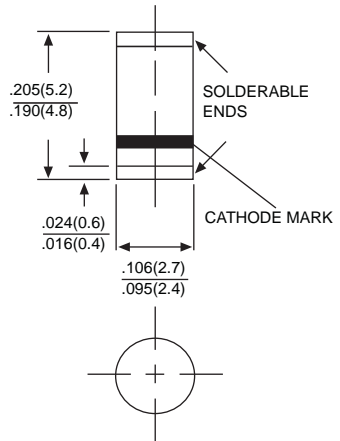
- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Terminals: Solder plated solderable per MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 0.12 gram

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz, 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	SM280	SM2100	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	80	100	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	35	42	56	70	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	50	60	80	100	Volts
Maximum Average Forward Rectified Current at T <sub>A</sub> =75°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	.85			Volts
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>	-55 to + 125							°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 ( SM220 THRU SM2100 )

FIG.1  
TYPICAL FORWARD CURRENT DERATING CURVE

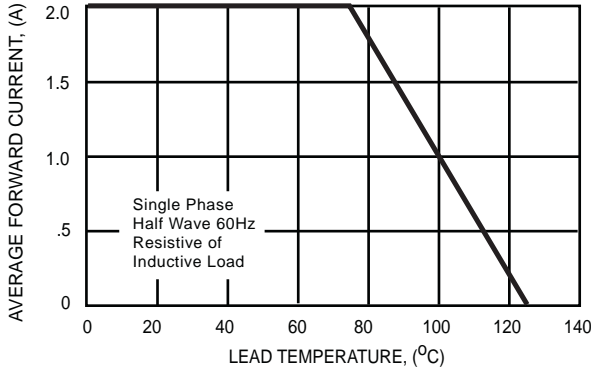


FIG.2  
TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

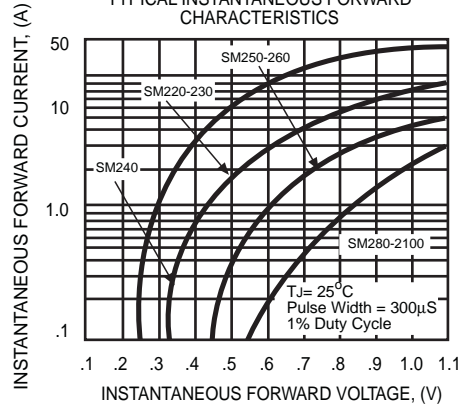


FIG.3  
TYPICAL REVERSE CHARACTERISTICS

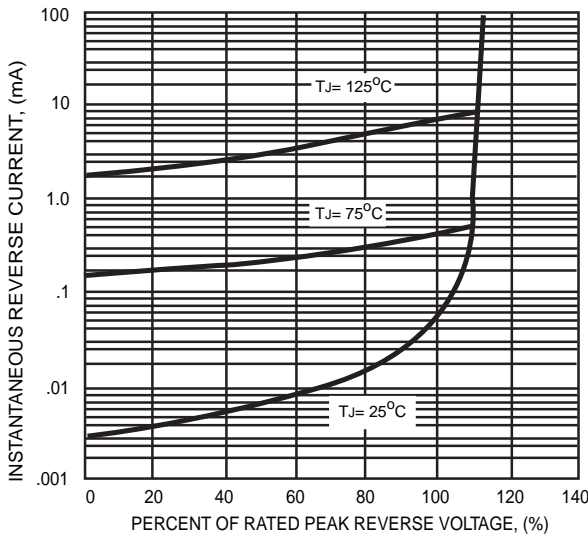


FIG.6  
MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

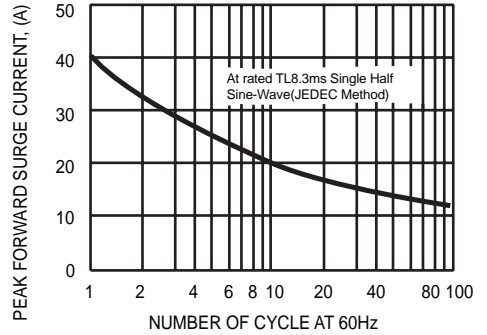
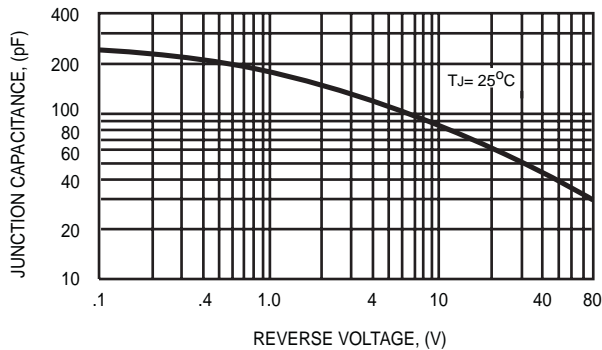


FIG.5  
TYPICAL JUNCTION CAPACITANCE



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