

# SM220 - SM260

## SURFACE MOUNT SCHOTTKY BARRIER DIODES

### VOLTAGE RANGE: 20-60V CURRENT: 2.0 A

#### Features

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-O

#### **Mechanical Data**

- Case: LL41/DO-213AB
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch







<b>Min</b> 4.80	<b>Max</b> 5.20						
4.80	5.20						
2.40	2.60						
0.55 Nominal							
All Dimensions in mm							
0.55 Nominal mensions in mm							

#### Maximum Ratings and Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.

Characteristic	Symbol	SM220	SM230	SM240	SM250	SM 260	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	Vrrm Vrwm Vr	20	30	40	50	60	V
RMS Reverse Voltage	VR(RMS)	14	21	28	35	42	V
Average Rectified Output Current $@T_L = 105^{\circ}C$	lo	2.0					А
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	50					A
Forward Voltage $@I_F = 2.0A$	Vfm	0.50 0.70					V
Peak Reverse Current $@T_A = 25^{\circ}C$ At Rated DC Blocking Voltage $@T_A = 100^{\circ}C$	Iгм	0.5 20					mA
Typical Thermal Resistance (Note 1)	R∂jl R∂ja	17 75					°C/W
Operating Temperature Range	Tj	-65 to +125					°C
Storage Temperature Range	Тѕтс	-65 to +150					°C

Note: 1. Mounted on P.C. Board with 8.0mm<sup>2</sup> copper pad area.



#### RATING AND CHARACTERISTIC CURVES (SM220 THRU SM260)



FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



10

.1

.4

1.0

4

REVERSE VOLTAGE, (V)

10

100

40