

## SM120 THRU SM160

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

### VOLTAGE RANGE 20 to 60 Volts CURRENT 1.0 Ampere

#### **FEATURES**

- \* Ideal for surface mounted applications
- \* Low leakage current
- \* Metallurgically bonded construction
- \* Mounting position: Any
- \* Weight: 0.015 gram

#### **MECHANICAL DATA**

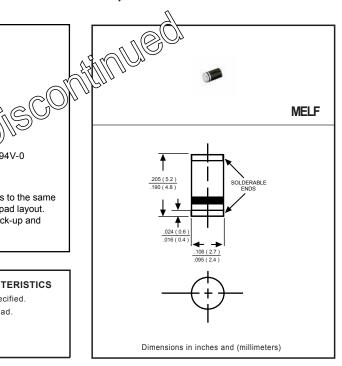
\* Epoxy : Device has UL flammability classification 94V-0

#### **DISCONTINUED-**

"This series is replaced by the FM1XX series that meets to the same fit and function parameters and share the same solder pad layout. The FM1XX series is preferred for error-free vacuum pick-up and PCB assembly."

#### 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%.



#### MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	SM120	SM130	SM140	SM150	SM160	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 Derating Case Temperature	Io	1.0					
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	40					
Typical Junction Capacitance (Note 2)	CJ	110					
Operating Temperature Range	TJ	150					
Storage Temperature Range	T <sub>STG</sub>	-55 to + 150					

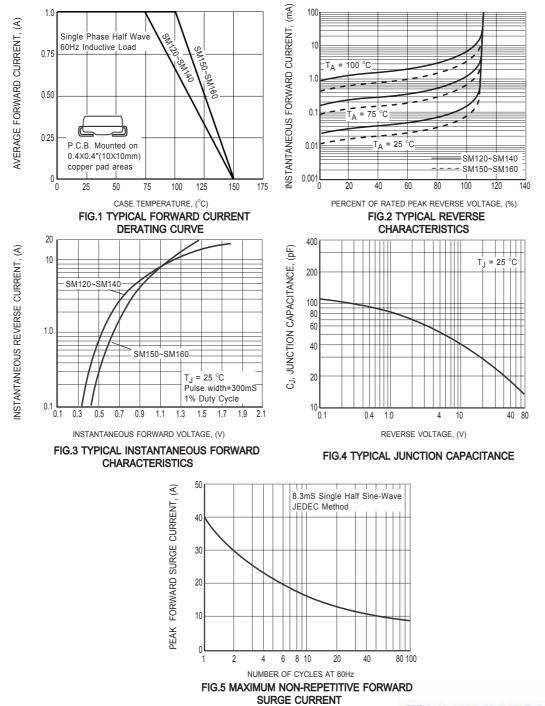
### ELECTRICAL CHARACTERISTICS(@TA=25 °C unless otherwise noted)

CHARACTERISTICS		SYMBOL	SM120	SM130	SM140	SM150	SM160	UNITS
Maximum Instantaneous Forward Voltage at 1.0A DC		V <sub>F</sub>	.55			.7	.70	
Maximum Average Reverse Current	@T <sub>A</sub> = 25°C	- I <sub>R</sub>	0.2					mA
at Rated DC Blocking Voltage	@T <sub>A</sub> = 100°C				2			mA

NOTES: 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

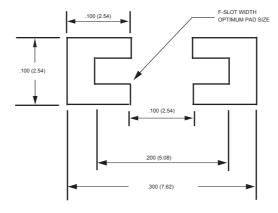
2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

## RATING AND CHARACTERISTICS CURVES (SM120 THRU SM160)





# **Mounting Pad Layout**



Dimensions in inches and (millimeters)



## **DISCLAIMER NOTICE**

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