

## SURFACE MOUNT SCHOTTKY RECTIFIERS SM5817 THRU SM5819

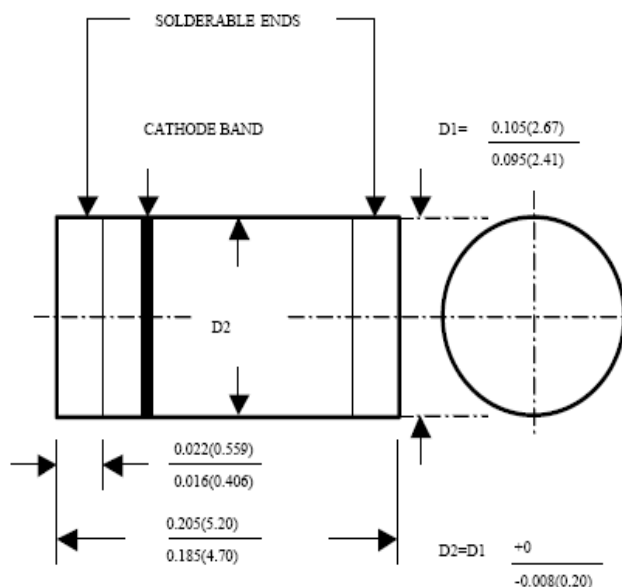
### FEATURE

- Low power loss, high efficient
- High surge current capability
- Low forward voltage drop
- For use in low voltage, high frequency inverters, free wheeling application
- Guarding for over voltage protection

### MECHANICAL DATA

- Case: Molded plastic use UL94V-0 recognized flame retardant epoxy
- Terminals: Solder plated, solderable per MIL-STD-750 Method 2026
- Polarity: Blue color band on body denotes Cathode
- Mounting position: Any
- Weight: 0.12 gram

### DO-213AB / MELF



Dimension in inches (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C Ambient temp. Unless otherwise specified. Single phase, half sine wave, 60HZ, resistive or inductive load.

For capacitive load, derate current by 20%

	SYMBOL	SM5817	SM5818	SM5819	UNITS
Maximum Current Peak Reverse Voltage	VRRM	20	30	40	Volts
Maximum RMS Voltage	VRMS	14	24	28	Volts
Maximum DC Blocking Voltage	VDC	20	30	40	Volts
Maximum Average Forward Rectified current T <sub>F</sub> =90°C	I(AV)	1.0			Amps
Peak Forward Surge current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	IFSM	25.0			Amps
Maximum Instantaneous Forward Voltage at 1.0DC	VF	0.45	0.55	0.6	Volts
Maximum DC Reverse Current @ T <sub>A</sub> =25°C at Rated DC Blocking Voltage @ T <sub>A</sub> =125°C	IR	0.5 10.0			mA
Typical Junction Capacitance (Note 1)	CJ	110.0		80.0	Pf
Typical Thermal Resistance (Note 2)	RθJA	15.0			°C/W
Operating and Storage Temperature Range	TSTG/TJ	-55 to +125/-65 to +150			°C

Notes: 1. Measured at 1 MHz and Applied Reverse Voltage of 4.0 Volts D.C.

2. Thermal Resistance from Junction to Ambient

FIG. 1 – DERATING CURVE FOR OUTPUT RECTIFIER CURRENT

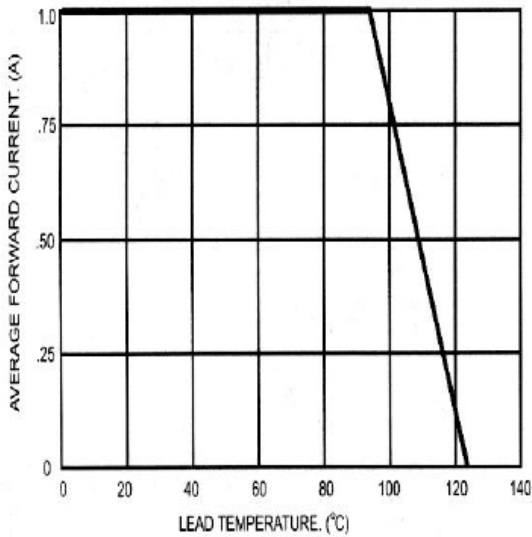


FIG. 2 – MAXIMUM NON - REPETITIVE PEAK FORWARD SURGE CURRENT

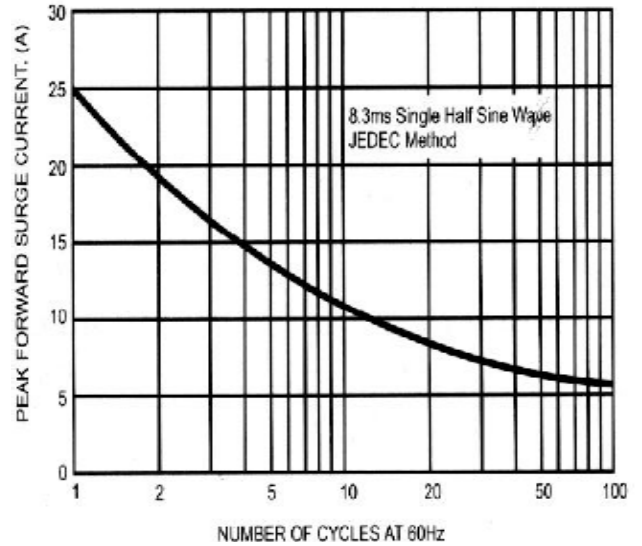


FIG. 3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

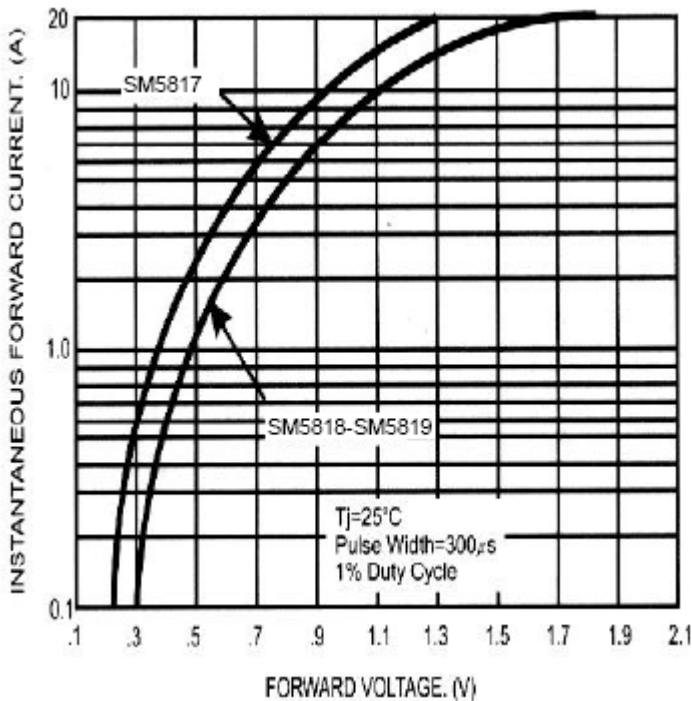


FIG. 4 – TYPICAL JUNCTION CAPACITANCE

