

Kingtronics®

SM5817 THRU SM5819

SURFACE MOUNT SCHOTTKY RECTIFIERS

FEATURES

- ◆ 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

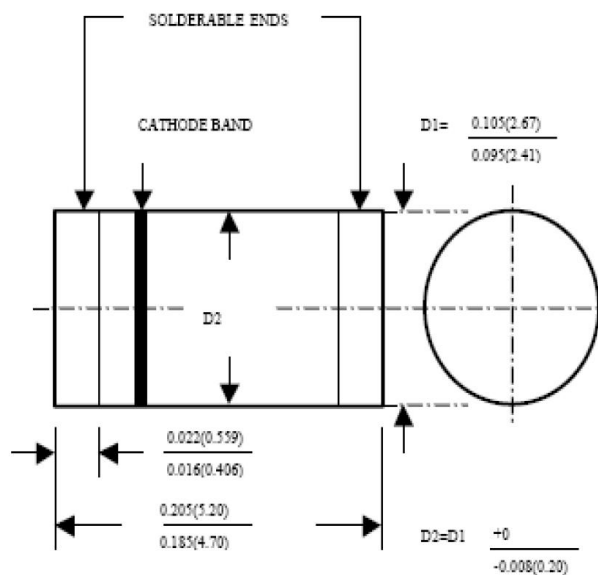
per MIL-STD-750 Method 2026

Polarity: Blue color band on body denotes Cathode

Mounting Position: Any

Weight: 0.12 gram

DO-213AB/MELF



Dimensions in inches and (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	V _{RRM}	20	30	40	Volts
Maximum RMS Voltage	V _{RMS}	14	24	28	Volts
Maximum DC blocking Voltage	V _{DC}	20	30	40	Volts
Maximum Average Forward Rectified current	I _(AV)		1.0		Amps
Peak Forward Surge current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	I _{FSM}		25.0		Amps
Maximum Instantaneous Forward Voltage at 1.0DC	V _f	0.45	0.55	0.6	Volts
Maximum DC Reverse Current @ T _A =25°C at Rated DC Blocking Voltage @ T _A =125°C	I _R		0.5		mA
Typical Junction Capacitance (Note 1)	C _J		110.0	80	Pf
Typical Thermal Resistance (Note 2)	R _{θJA}		15.0		°C/W
Operating and Storage Temperature Range	T _{STG, T_J}		-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

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RATING AND CHARACTERISTIC CURVES SM5817 THRU SM5819

FIG. 1 – DERATING CURVE FOR OUTPUT RECTIFIER CURRENT

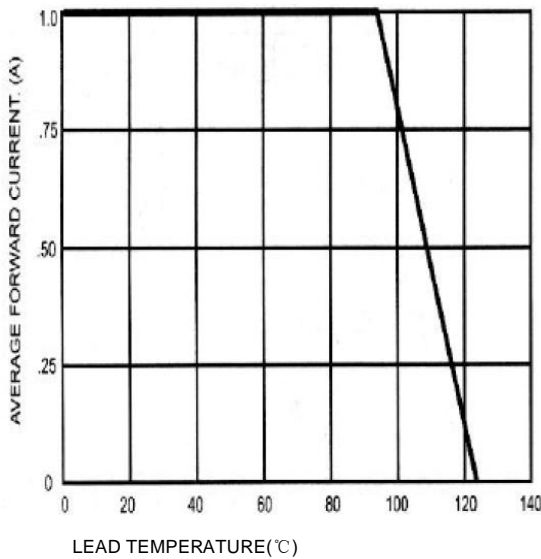


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

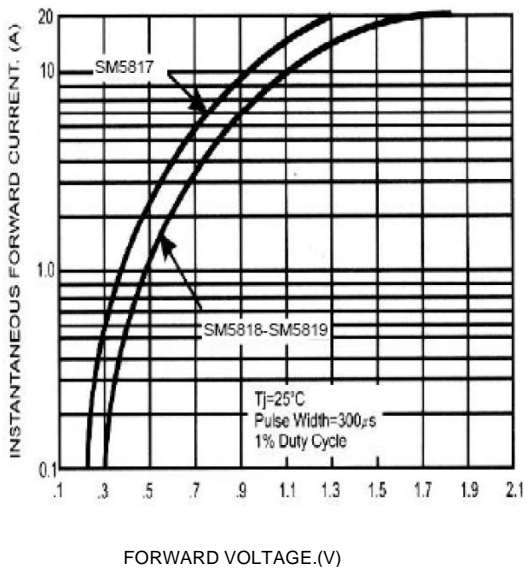


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

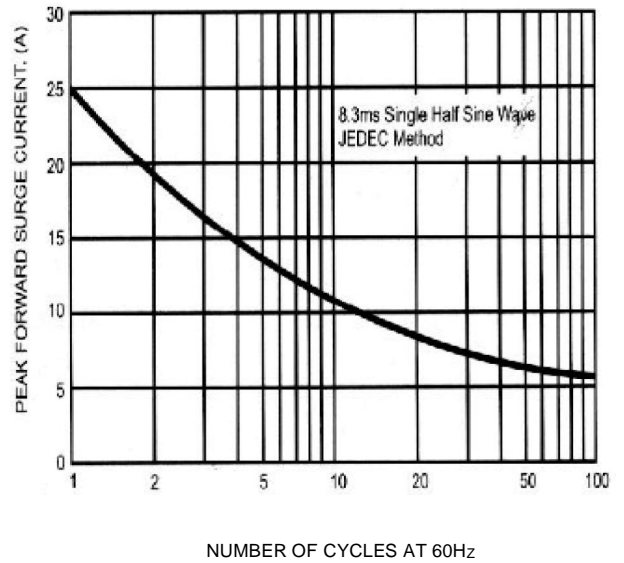
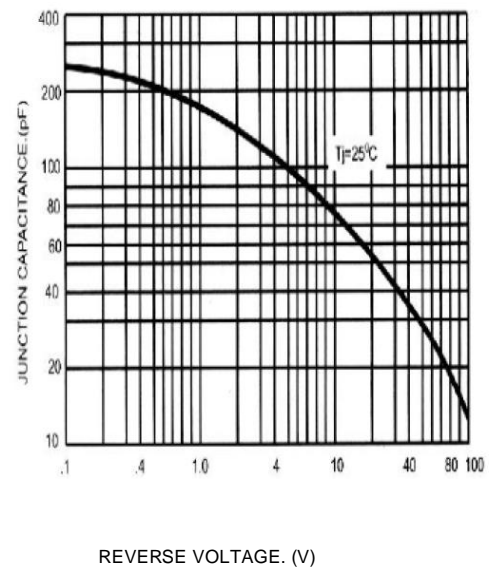


FIG. 4-TYPICAL JUNCTION CAPACITANCE



Note: Specifications are subject to change without notice.

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