DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

SM5817 THRU SM5819

TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE - 20 to 40 Volts *CURRENT - 1.0 Ampere*

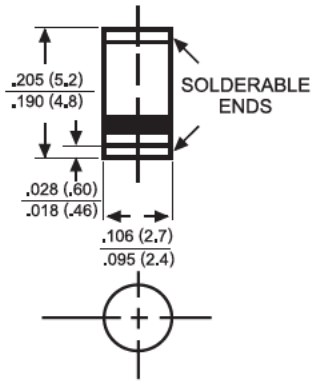
FEATURES

* 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

SM-1(DO-213AB)



Dimensions in inches and (millimeters)

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%.

		SYMBOL	SM5817	SM5818	SM5819	UNITS
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	20	30	40	Volts
Maximum RMS Voltage		V_{RMS}	14	21	28	Volts
Maximum DC Blocking Voltage		V_{DC}	20	30	40	Volts
Maximum Average Forward Rectified Current at T_A=90°C		Io	1.0			Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		I_{FSM}	25			Amps
Maximum Instantaneous Forward Voltage at 1 0A DC		V_F	.45	.55	.60	
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T_A = 25°C	R	1 0			mAmps
	@T_A = 100°C		10			
Typical Thermal Resistance (Note1)		$R_{\theta JA}$	75			°C/W
Typical Junction Capacitance (Note 2)		C_J	110			pF
Storage Operating Temperature Range		T_J, T_{STG}	-65 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.

Diode, Bridge INDEX 1 Rectifiers
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EXIT

RATING AND CHARACTERISTIC CURVES (SM5817 THRU SM5819)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

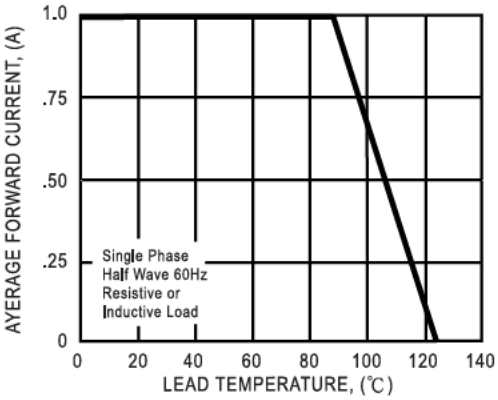

FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARCTERISTICS

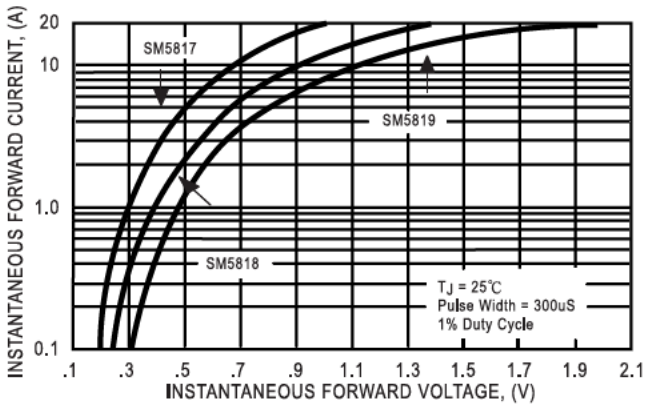

FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

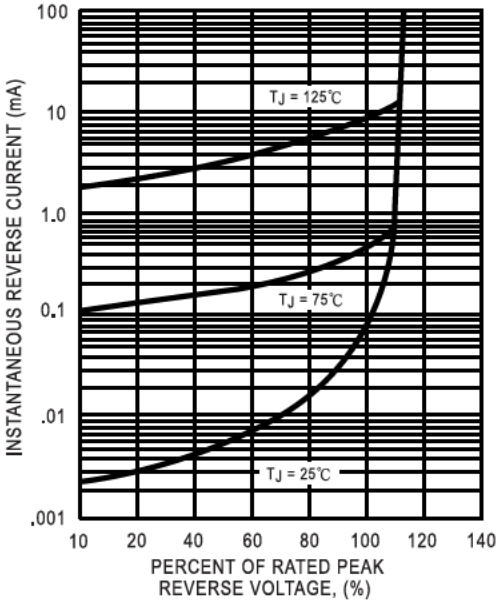

FIG. 4 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

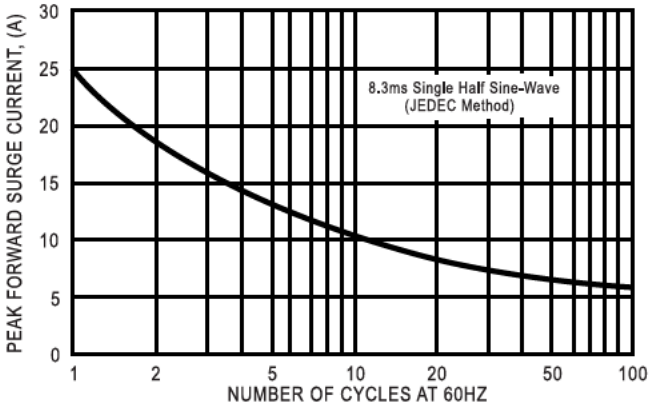
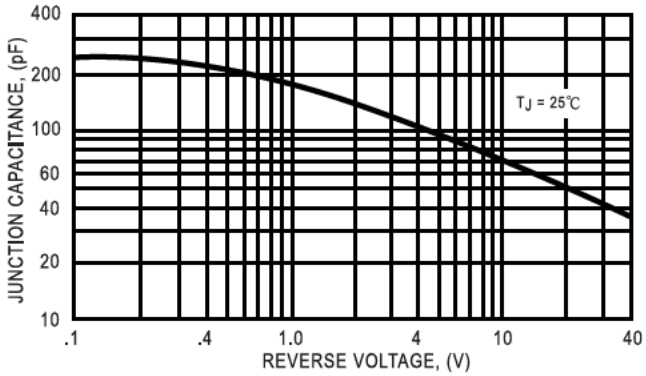
FIG. 5 - TYPICAL JUNCTION CAPACITANCE