SM5817 THRU SM5819

1.0 AMP SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

GW

FEATURES

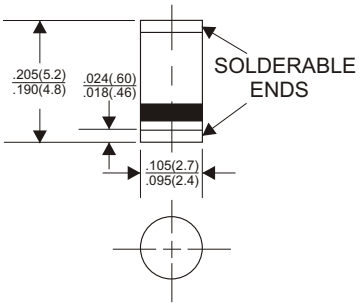
* Low forward voltage drop
* Low leakage current
* High reliability

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Metallurgically bonded construction
* Polarity: Color band denotes cathode end
* Mounting position: Any
* Weight: 0.015 grams

VOLTAGE RANGE
20 to 40 Volts
CURRENT
1.0 Ampere

SM-1



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25˚C ambient temperature uniess otherwies specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	SM5817	SM5818	SM5819	UNITS
Maximum Recurrent Peak Reverse Voltage	20	30	40	V
Maximum RMS Voltage	14	21	28	V
Maximum DC Blocking Voltage	20	30	40	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at Ta=90˚C	1.0			A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	25			A
Maximum Instantaneous Forward Voltage at 1.0A	0.45	0.55	0.60	V
Maximum DC Reverse Current Ta=25˚C	1.0			mA
at Rated DC Blocking Voltage Ta=100˚C	10			mA
Typical Junction Capacitance (Note1)	110			pF
Typical Thermal Resistance R JA (Note 2)	80			˚C/W
Operating Temperature Range T_J	-65 — +125			˚C
Storage Temperature Range T_{STG}	-65 — +150			˚C

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal Resistance Junction to Ambient.

RATING AND CHARACTERISTIC CURVES (SM5817 THRU SM5819)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

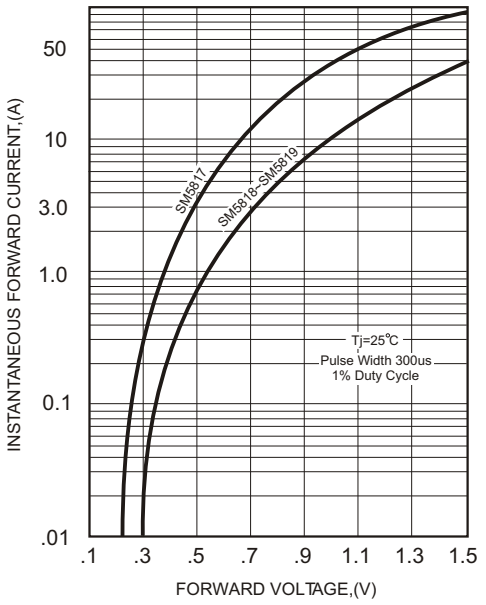


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

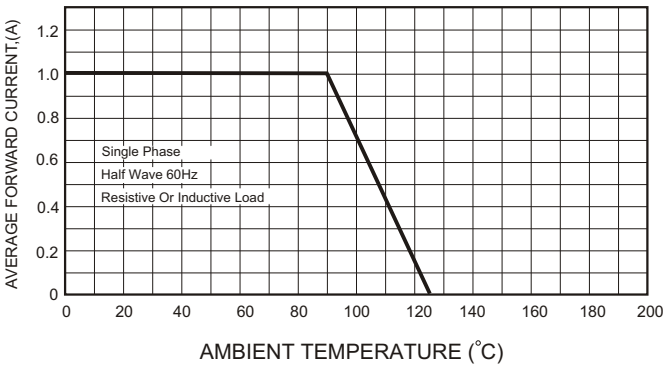


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

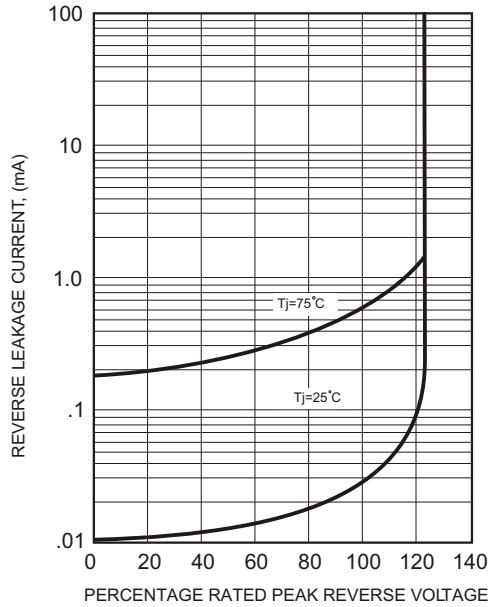


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

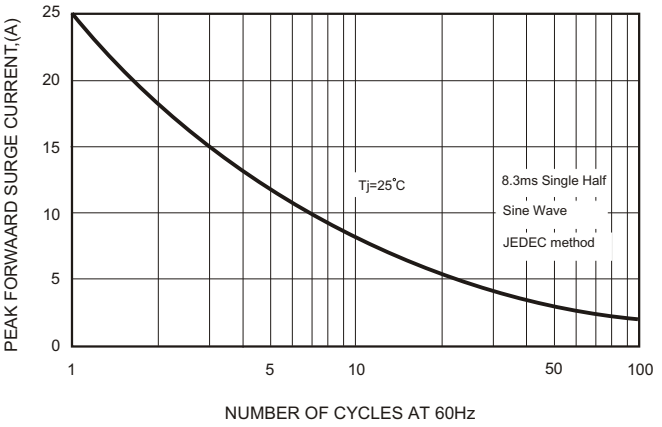


FIG.5-TYPICAL JUNCTION CAPACITANCE