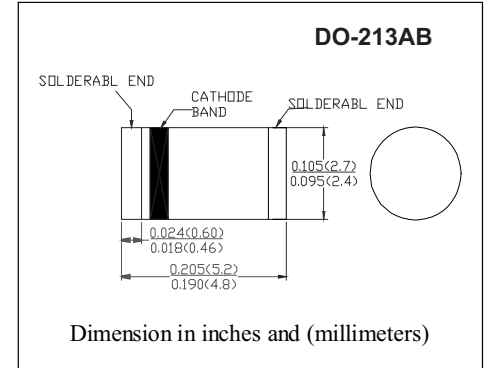


SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

FEATURES

- Fast switching
- Low forward voltage drop.
- Low power loss , high efficiency
- High surge capability
- High reliability
- High current capability
- Plastic package has underwrites laboratory flammability classification 94v-0
- High temperature soldering guaranteed:
250 °C/10 seconds at terminals .



MECHANICAL DATA

- Case: molded plastic
- Polarity: Color band indicate cathode
- Mounting Position: Any.
- Weight: 0.12 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load derate current by 20%.

	SYMBOLS	SM5817	SM5818	SM5819	UNITS
Maximum Repetitive 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 $T_L=90^{\circ}C$	$I_{(AV)}$	1.0			Amp
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	25			Amps
Maximum Instantaneous Forward Voltage at 1.0A	V_F	0.450	0.550	0.600	Volts
Maximum DC Reverse Current at rated DC blocking voltage at (Note1)	$T_A=25^{\circ}C$	0.5			mA
	$T_A=125^{\circ}C$	10			
Typical Junction Capacitance (Note 2)	C_J	110			PF
Maximum Thermal Resistance	R_{QJL} (Note3)	30			°C/W
	R_{QJA} (Note4)	80			
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +125			°C

NOTES:

1. Pulse test:300 μ s pulse width 1% duty cycle
2. Measured at 1.0MHZ and applied reverse voltage of 4.0 volts DC.
3. Thermal resistance junction to terminal 6.0mm² copper pads to each terminal.
4. Thermal resistance junction to ambient 6.0mm² copper pads to each terminal.

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

RATING AND CHARACTERISTIC CURVES SM5817 - SM5819

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

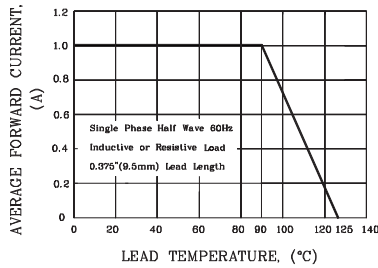


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

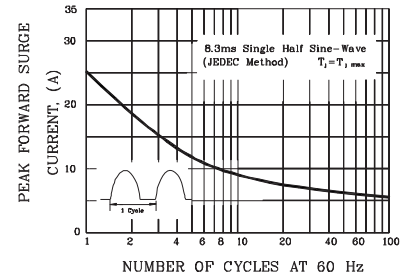


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

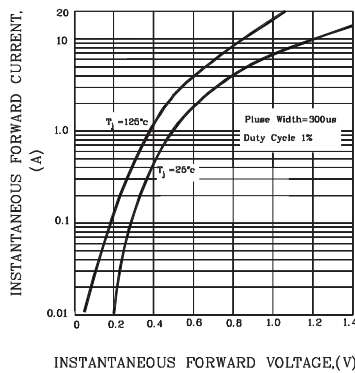


FIG.4-TYPICAL REVERSE CHARACTERISTICS

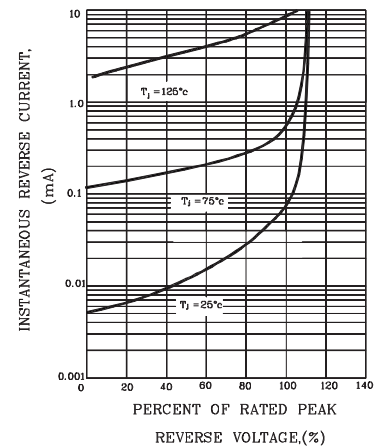
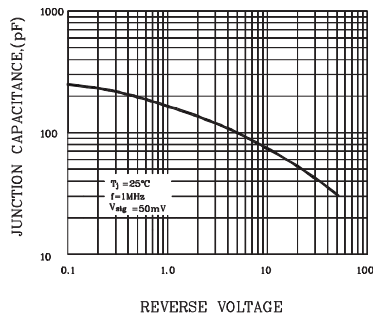


FIG.5-TYPICAL JUNCTION CAPACITANCE



Disclaimer

All product, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise.