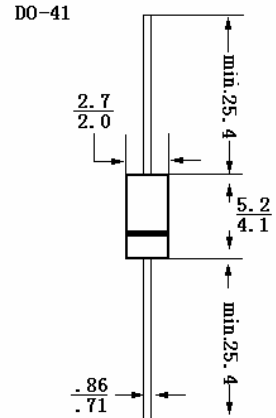


1N 5817 THRU 1N 5819

SCHOTTKY BARRIER DIODES

Features

- Metal silicon junction, majority carrier conduction
- Guarding for overvoltage protection
- Low power loss, high efficiency
- High current capability low forward voltage drop
- High surge capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering guaranteed; 250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3Kg) tension

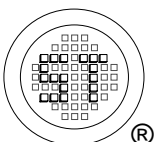


Dimensions in mm

Absolute Maximum Ratings and Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

	Symbols	1N5817	1N5818	1N5819	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 Non-repetitive Peak Reverse Voltage	V_{RSM}	24	36	48	Volts
Maximum Average Forward Rectified Current 0.375" (9.5mm) Lead Length At $T_L = 90^\circ\text{C}$	$I_{(AV)}$	1			Amps
Peak Forward Surge Current, 8.3ms Single half sine-wave Superimposed On Rated Load (JEDEC method) At $T_L = 70^\circ\text{C}$	I_{FSM}	25			Amps
Maximum Instantaneous Forward Voltage At 1 A	V_F	0.450	0.550	0.600	Volts
Maximum Instantaneous Forward Voltage At 3.1 A	V_F	0.750	0.875	0.900	Volts
Maximum Instantaneous Reverse Current at $T_A = 25^\circ\text{C}$ Rated DC Reverse Voltage	I_R	1			mAmps
		10			mAmps
Typical Thermal Resistance	$R_{\theta JA}$ $R_{\theta JL}$	50 15			$^\circ\text{C/W}$
Typical Junction Capacitance	C_J	110			pF
Storage and Operating Junction Temperature Range	T_J, T_S	-65 to +125			$^\circ\text{C}$



SEMTECH ELECTRONICS LTD.

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Dated : 26/05/2005

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SCHOTTKY BARRIER DIODES

FIG.1-FORWARD CURRENT DERATING CURVE

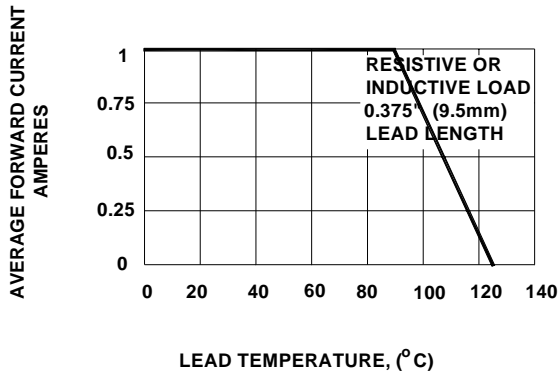


Fig.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

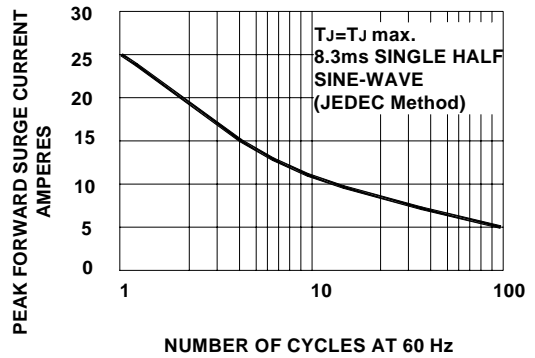


Fig.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

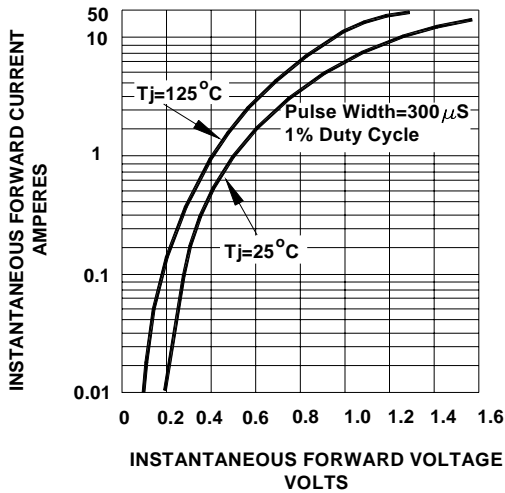


Fig.4- TYPICAL REVERSE CHARACTERISTICS

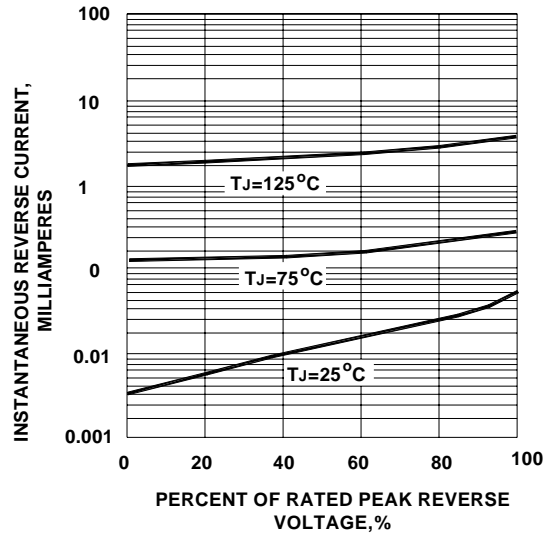


Fig.5- TYPICAL JUNCTION CAPACITANCE

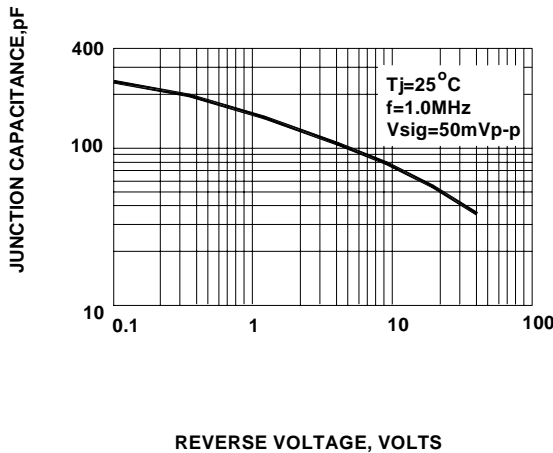
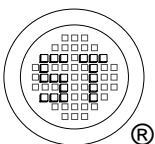
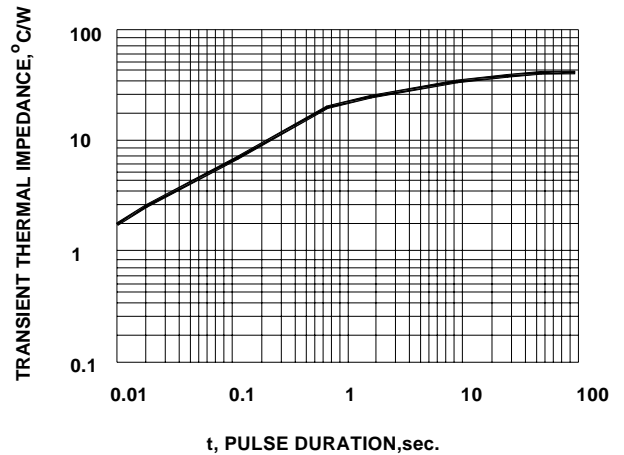


Fig.6- TYPICAL TRANSIENT THERMAL IMPEDANCE



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