

1N5817 THRU 1N5819

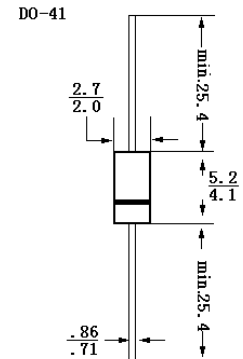
SCHOTTKY BARRIER RECTIFIERS

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

Mechanical Data

- Case: Molded plastic, DO-41

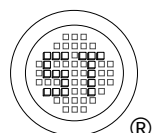


Dimensions in mm

Maximum Ratings and Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbols	1N5817	1N5818	1N5819	Units
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	20	30	40	V
Maximum RMS voltage	V _{RMS}	14	21	28	V
Maximum DC Blocking Voltage	V _{DC}	20	30	40	V
Maximum Average Forward Rectified Current 0.375" (9.5 mm) Lead Length at T _L = 90 °C	I _(AV)	1			A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed On Rated Load (JEDEC method) at T _L = 70 °C	I _{FSM}	25			A
Maximum Instantaneous Forward Voltage at 1 A Maximum Instantaneous Forward Voltage at 3.1 A	V _F	0.45 0.75	0.55 0.875	0.6 0.9	V
Maximum Instantaneous Reverse Current at T _A = 25 °C Rated DC Reverse Voltage T _A = 100 °C	I _R	1 10			mA
Typical Thermal Resistance	R _{θJA}	50			°C/W
	R _{θJL}	15			
Typical Junction Capacitance	C _J	110			pF
Storage and Operating Junction Temperature Range	T _J , T _{stg}	- 65 to + 125			°C



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FIG.1-FORWARD CURRENT DERATING CURVE

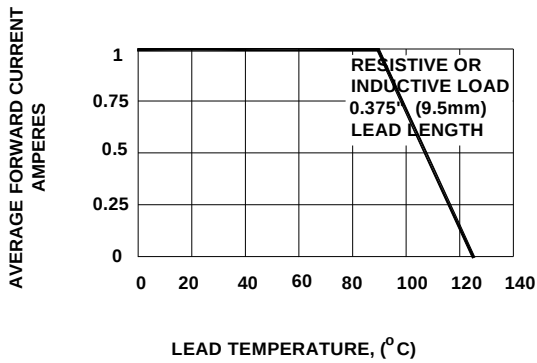


Fig.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

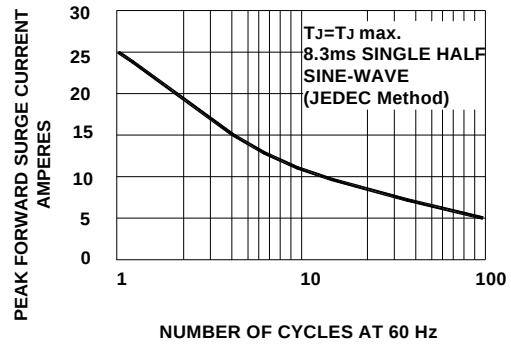


Fig.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

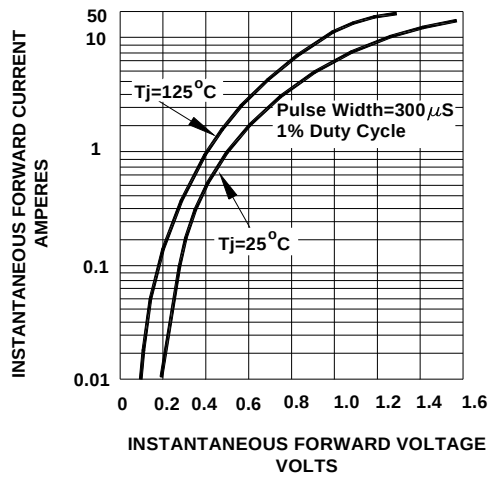


Fig.4- TYPICAL REVERSE CHARACTERISTICS

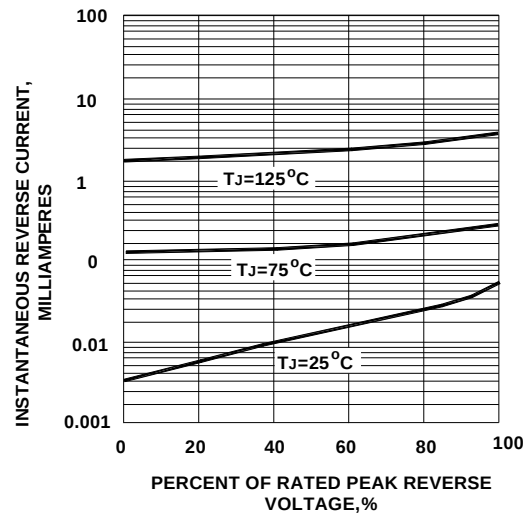


Fig.5- TYPICAL JUNCTION CAPACITANCE

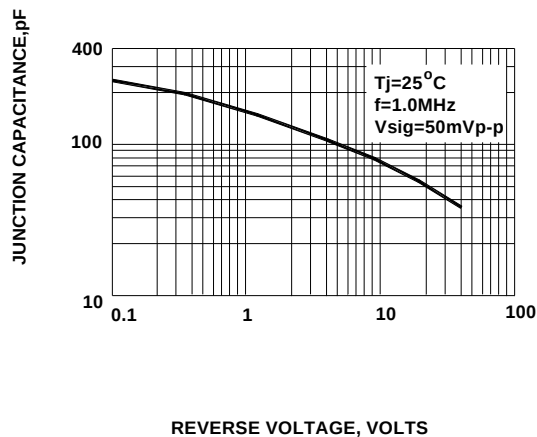


Fig.6- TYPICAL TRANSIENT THERMAL IMPEDANCE

