

# 1N5817 THRU 1N5819

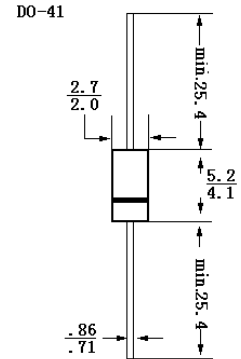
## SCHOTTKY BARRIER RECTIFIERS

### 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

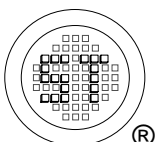


Dimensions in mm

### Maximum Ratings and Electrical Characteristics

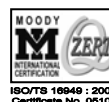
Ratings at 25 °C ambient temperature unless otherwise specified.

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 $T_L = 90^\circ\text{C}$	$I_{(AV)}$	1			A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed On Rated Load (JEDEC method) at $T_L = 70^\circ\text{C}$	$I_{FSM}$	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 Rated DC Reverse Voltage	$I_R$	1 10			mA
Typical Thermal Resistance	$R_{\theta JA}$	50			°C/W
	$R_{\theta JL}$	15			
Typical Junction Capacitance	$C_J$	110			pF
Storage and Operating Junction Temperature Range	$T_j, T_{stg}$	- 65 to + 125			°C



**SEMTECH ELECTRONICS LTD.**

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



# 1N5817 THRU 1N5819

FIG.1-FORWARD CURRENT DERATING CURVE

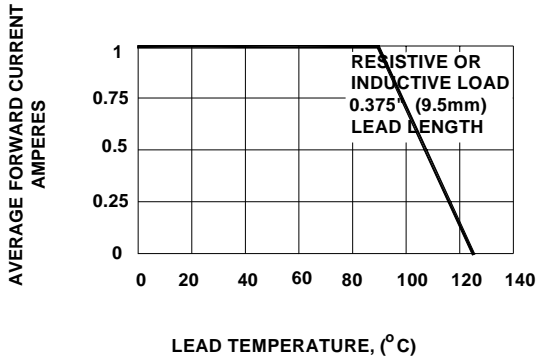


Fig.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

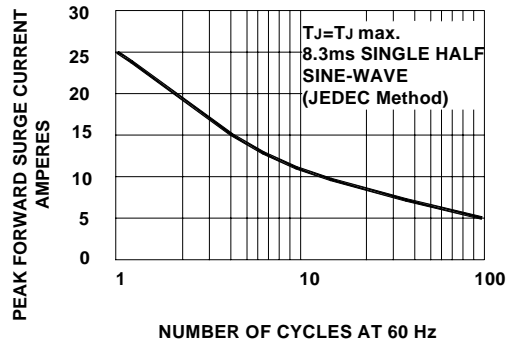


Fig.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

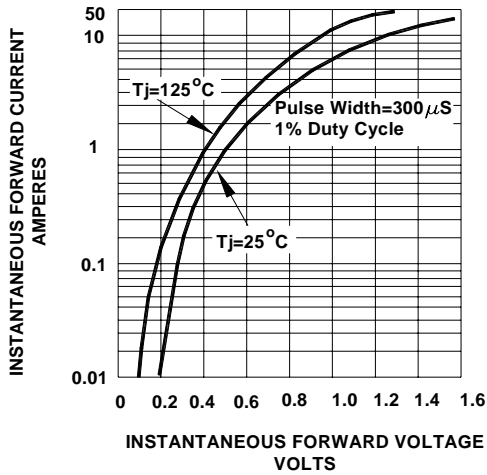


Fig.4- TYPICAL REVERSE CHARACTERISTICS

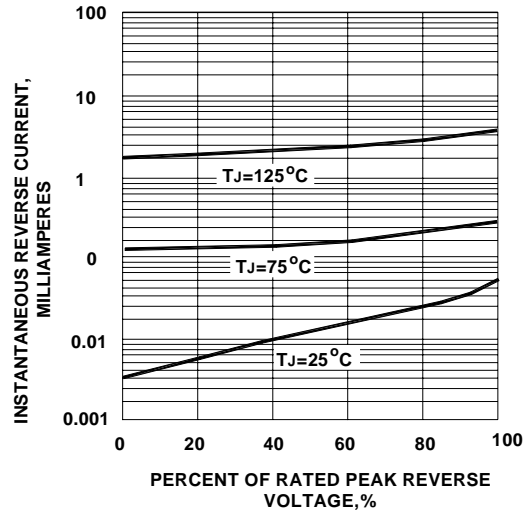


Fig.5- TYPICAL JUNCTION CAPACITANCE

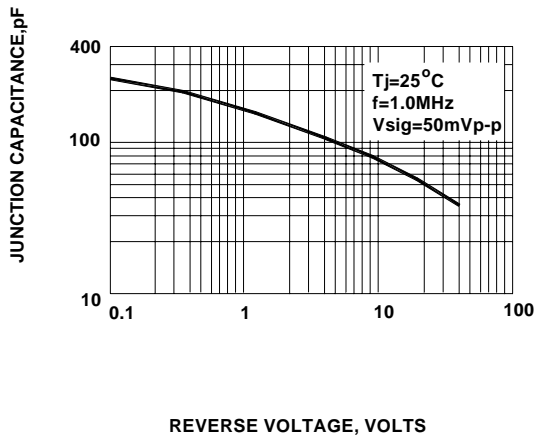
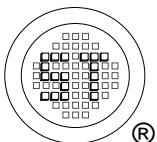
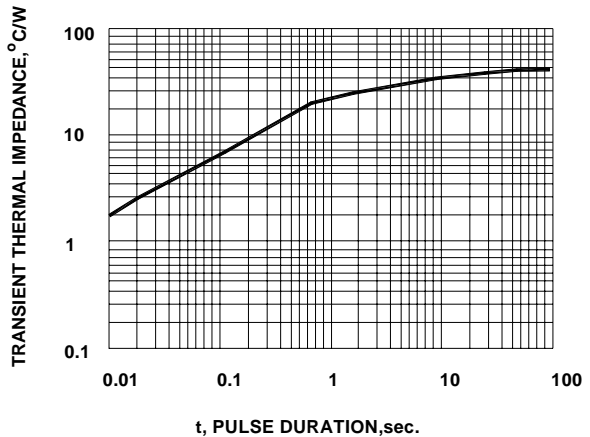


Fig.6- TYPICAL TRANSIENT THERMAL IMPEDANCE



**SEMTECH ELECTRONICS LTD.**

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)

