

1N5817 THRU 1N5819 SCHOTTKY BARRIER DIODE



Features

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- High Current Capability
- Low Power Loss, High Efficiency
- High Surge Current Capability
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications
- This is a Pb - Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Mechanical Data

- Case: Molded Plastic
- Terminals: Plated leads, Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Mounting Position: Any
- Weight: 0.28 grams(approx)

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Parameter	Symbol	1N5817	1N5818	1N5819	Units
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	40	V
Maximum DC blocking voltage	V _R				
Maximum RMS voltage	V _{R(RMS)}	14	21	28	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at T _L =75°C	I _{F(AV)}	1			A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	25			A
Forward Voltage per element @I _F =1A, T _A =25°C @I _F =3A, T _A =25°C	V _F	0.50 0.75	0.55 0.875	0.60 0.90	V
Maximum DC reverse current T _A =25°C At rated DC blocking voltage T _A =100°C	I _R	0.1 10.0			mA
Typical junction capacitance (Note 1)	C _J	110			pF
Typical thermal resistance Junction to Ambient	R _{θJA}	100			°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150			°C

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

Ratings and Characteristics Curves

Fig. 1 Forward Current Derating Curve

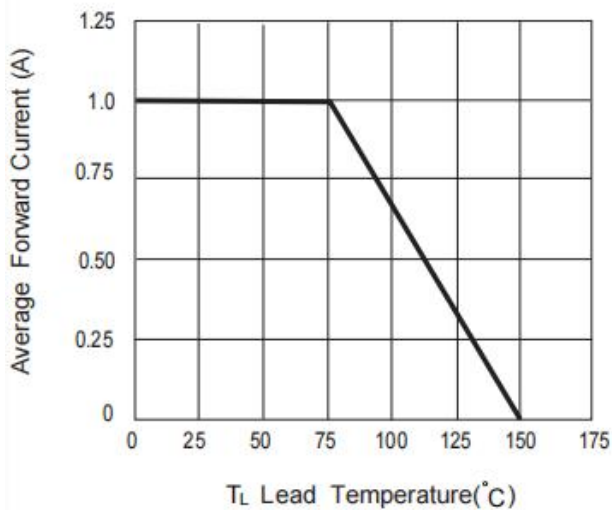
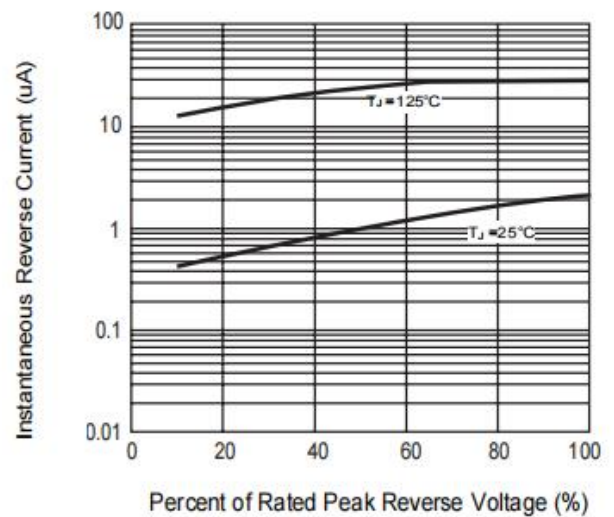
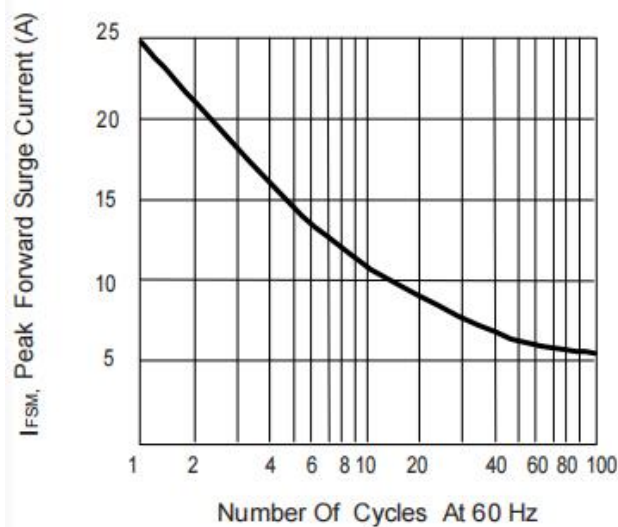
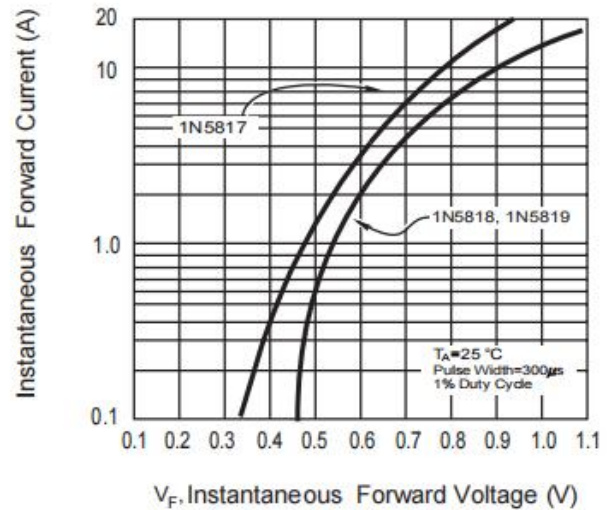
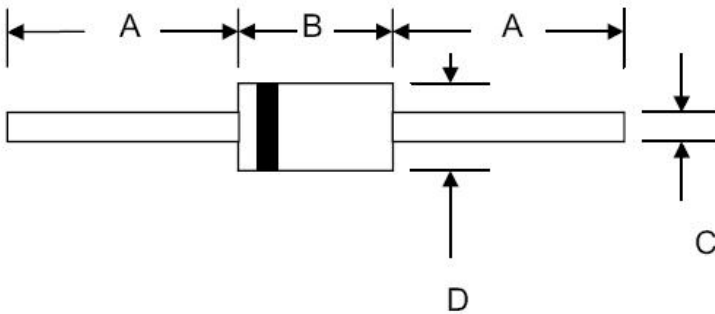


Fig. 2 Typ. Forward Characteristics



Mechanical Dimensions DO-41



SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	25.4	-	1.000	-
B	4.06	5.21	0.160	0.205
C	0.70	0.90	0.028	0.034
D	2.00	2.72	0.079	0.107

Ordering Information

Device	Package	Shipping
1N5817 THRU 1N5819	DO-41 (Pb-Free)	5000pcs /Tape
1N5817TA THRU 1N5819TA	DO-41 (Pb-Free)	5000pcs /Tape
1N5817TR THRU 1N5819TR	DO-41 (Pb-Free)	5000pcs /Reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram

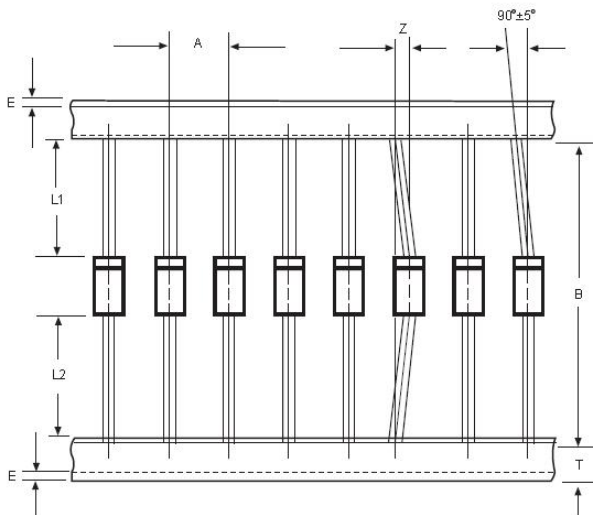


Where XXXXX is YYWWL

- 1N5817 = Part Name
- SSG = SSG
- YY = Year
- WW = Week
- L = Lot Number

Cautions: Molding resin
Epoxy resin UL94V-0

Carrier Tape Specification DO-41



SYMBOL	Millimeters	
	Min.	Max.
A	4.50	5.50
B	50.9	53.9
Z	-	1.20
T	5.60	6.40
E	-	0.80
IL1-L2I	-	1.0

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