

### Features

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Guard Ring Protection
- Low Forward Voltage
- Low Power Loss For High Efficiency
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant(Note 1)("P" Suffix Designates Compliant. See Ordering Information)

### Maximum Ratings

- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +125°C
- Maximum Thermal Resistance: 80°C/W Junction to Ambient

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
1N5817	1N5817	20V	14V	20V
1N5818	1N5818	30V	21V	30V
1N5819	1N5819	40V	28V	40V

### Electrical Characteristics @ 25°C Unless Otherwise Specified

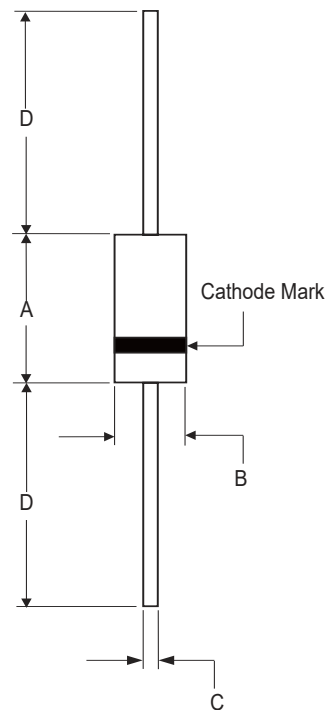
Average Forward Current	$I_{F(AV)}$	1.0A	$T_A = 90^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	25A	8.3ms, Half Sine
Maximum Instantaneous Forward Voltage	$V_F$	0.45V 0.55V 0.60V	$I_{FM}=1.0A;$ $T_J=25^\circ\text{C}^*$
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	0.1mA 10mA	$T_J=25^\circ\text{C};$ $T_J=100^\circ\text{C}$
Typical Reverse Recovery Time	$t_{rr}$	10ns	$I_F=0.5A, I_R=1.0A$ $I_{RR}=0.25A$
Typical Junction Capacitance	$C_J$	110pF	Measured at 1.0MHz $V_R=4.0V$

\*Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 2%

Note : 1.High Temperature Solder Exemption Applied, See EU Directive Annex 7a.

# 1.0 Amp Schottky Barrier Rectifier 20 to 40 Volts

## DO-41



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.160	0.205	4.10	5.20	
B	0.080	0.107	2.00	2.70	$\Phi$
C	0.028	0.035	0.71	0.90	$\Phi$
D	1.000	-----	25.40	-----	

**Curve Characteristics**

Fig. 1 - Forward Current Derating Curve

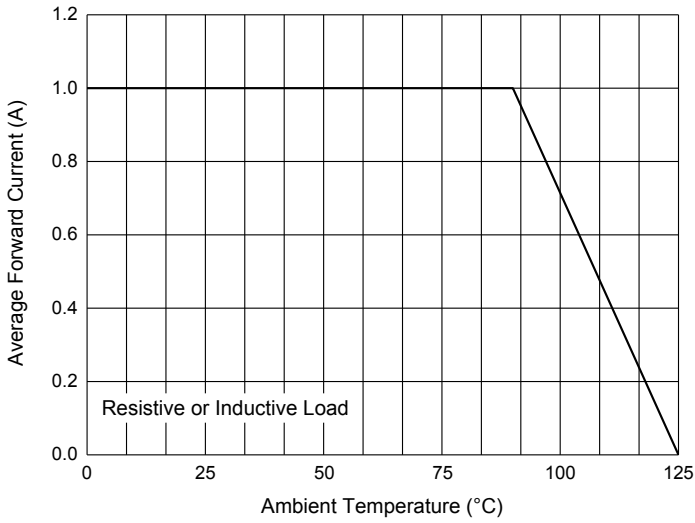


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

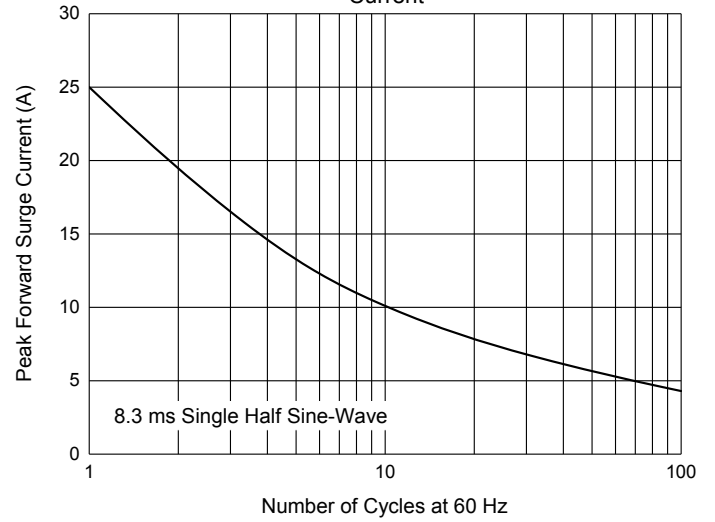


Fig. 3 - Typical Instantaneous Forward Characteristics

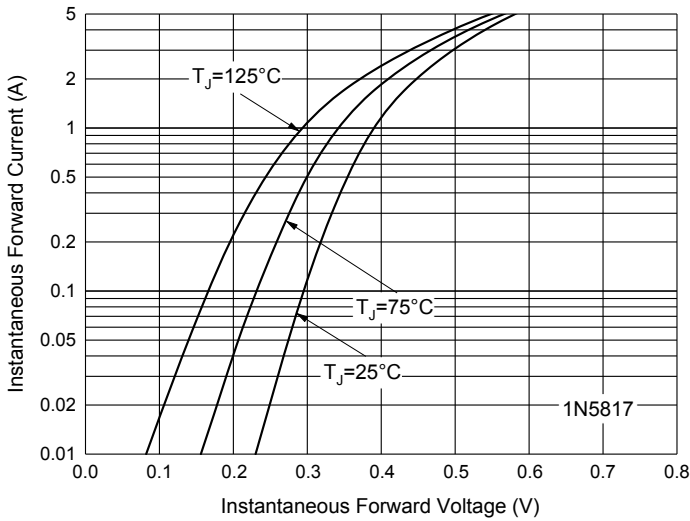


Fig. 4 - Typical Instantaneous Forward Characteristics

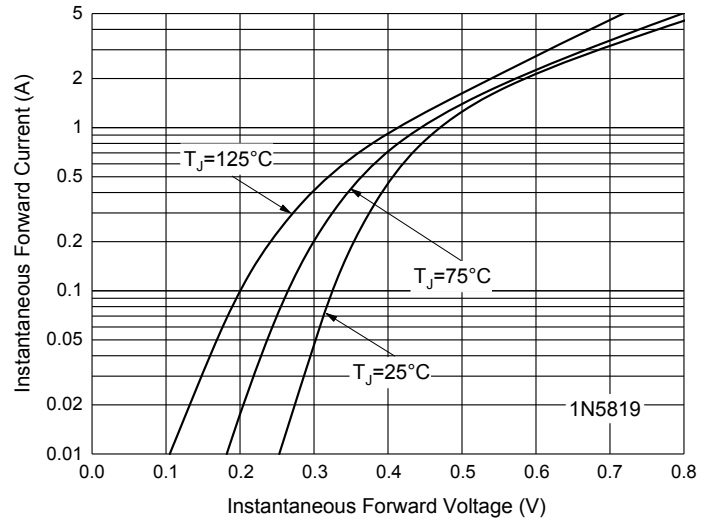


Fig. 5 - Typical Reverse Leakage Characteristics

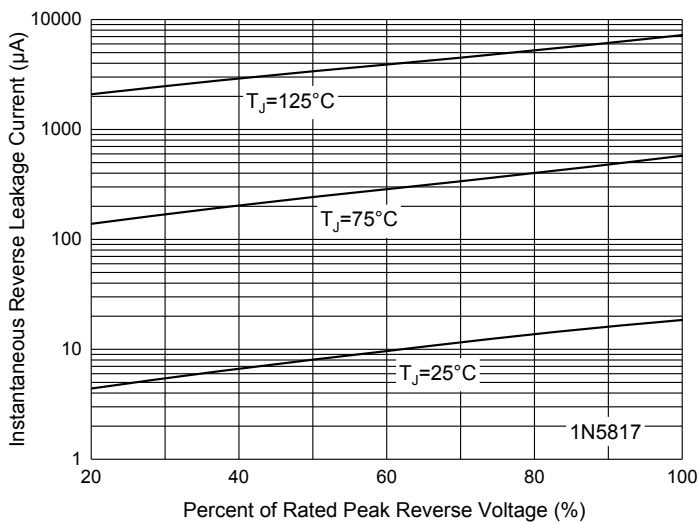
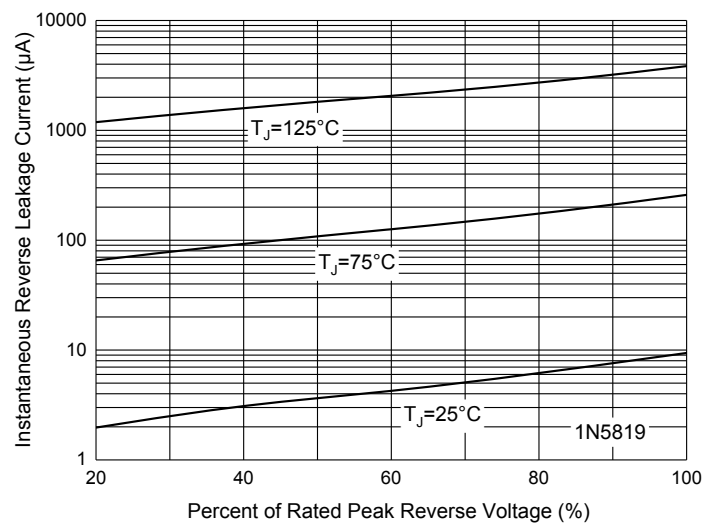


Fig. 6 - Typical Reverse Leakage Characteristics



## Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel: 5Kpcs/Reel
(Part Number)-AP	Ammo Packing: 5Kpcs/Ammo Box
(Part Number)-BP	Bulk: 1Kpcs/Box, 50Kpcs/Carton

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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