



**THE DATASHEET OF
1N5819-AP**



Features

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

1 Amp

GW ch_mIF YWJZYf

80 to 40 Volts

Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value			Unit
		1N5817	1N5818	1N5819	
Peak Repetitive Reverse Voltage	V_{RRM}	20	30	40	V
Working Peak Reverse Voltage	V_{RWM}				
DC Blocking Voltage	V_R				
RMS Reverse Voltage	V_{RMS}	14	21	28	V
Average Rectified Forward Current	$I_{F(AV)}$	1			A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	I_{FSM}	30			A
Current Squared Time @ 1ms ≤ t ≤ 8.3ms	I^2t	3.735			A ² s

DO-41

Cathode Mark

B

C

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

Marking code

Part Number	Marking Code
1N5817	1N5817
1N5818	1N5818
1N5819	1N5819

Internal Structure

Pin	Description	Simplified Outline	Graphic Symbol
1	Cathode	<p style="font-size: small;">MCC J XXXXX XXXXX: Marking Code</p>	
2	Anode		

Note: 1. High temperature solder exemption applied, see EU directive annex 7a.

Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
T_J	Operating Junction Temperature Range		-55		125	°C
T_{stg}	Storage Temperature Range		-55		150	°C
$R_{th(J-L)}$	Thermal Resistance from Junction to Lead			25		°C/W
$R_{th(J-A)}$	Thermal Resistance from Junction to Ambient			75		°C/W

Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage 1N5817 1N5818 1N5819	V_F	$I_F=1A; T_J=25^\circ C$			0.45 0.50 0.60	V
Reverse Current	I_R	at Rated $V_R; T_J=25^\circ C$ at Rated $V_R; T_J=100^\circ C$			0.1 10	mA
Junction Capacitance 1N5817 1N5818~1N5819	C_J	$V_R=4V; f=1MHz; T_J=25^\circ C$		75 50		pF
Reverse Recovery Time	t_{rr}	$I_F=0.5A; I_R=1.0A; I_{rr}=0.25A; T_J=25^\circ C$		10		nS

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

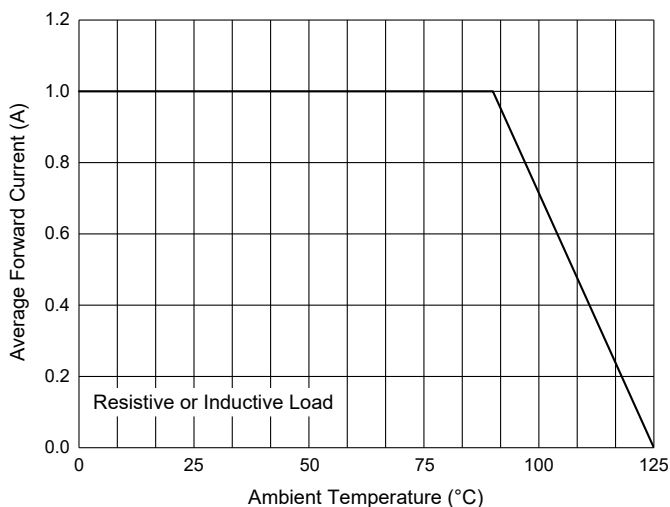


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

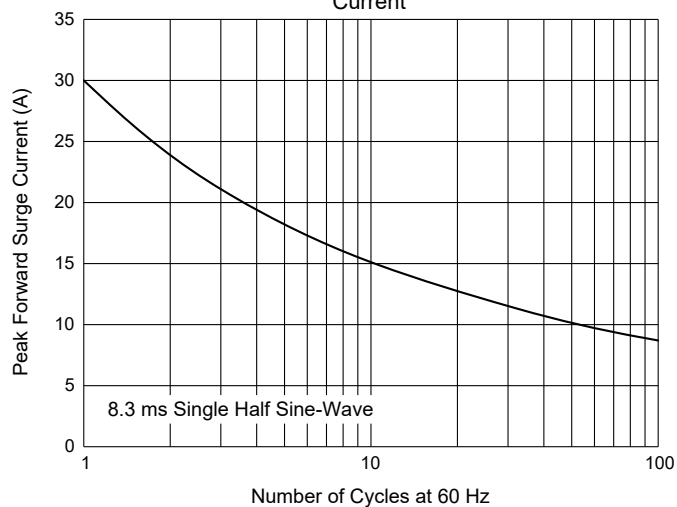


Fig. 3 - Typical Forward Characteristics

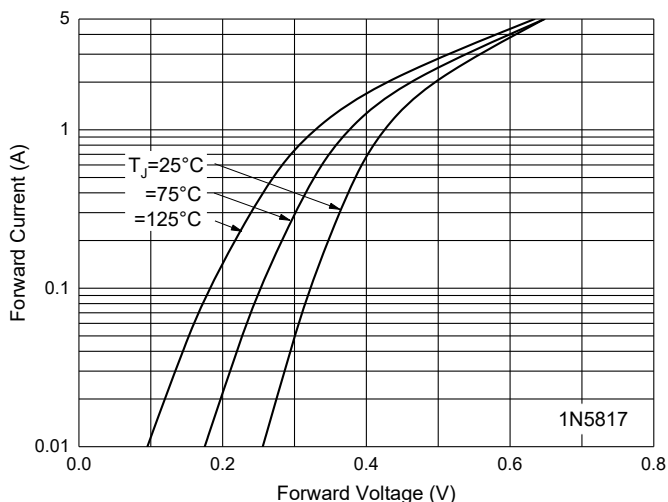


Fig. 4 - Typical Forward Characteristics

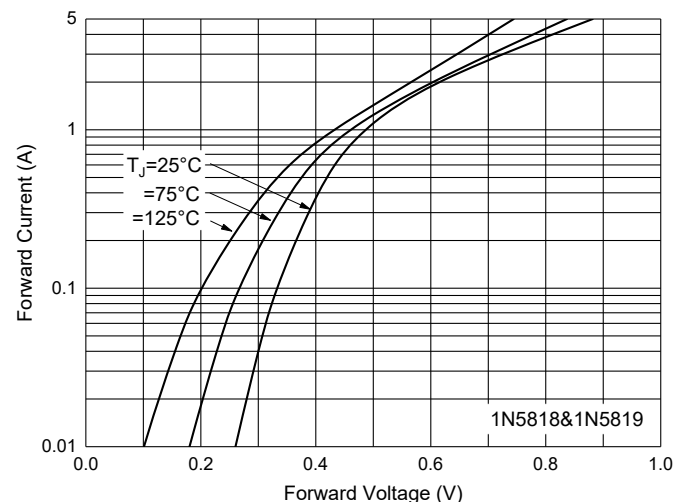


Fig. 5 - Typical Reverse Leakage Characteristics

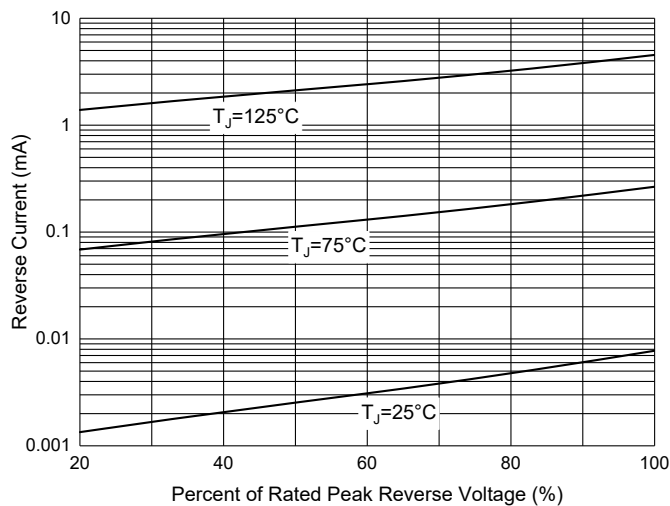
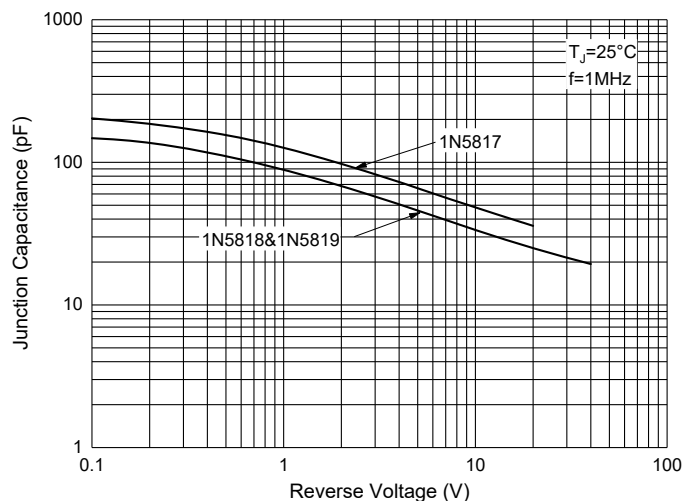


Fig. 6 - Typical Capacitance Characteristics



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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