

Features

- Extremely Low Thermal Resistance
- For Surface Mount Application and High Current Capability
- Higher Temp Soldering: 260°C for 10 Seconds At Terminals
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free. "Green" Device (Note 1)
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +125°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 400°C/W Junction to Ambient(Note 2)

MCC Part Number	Repetitive Peak Reverse Voltage V_{RRM}	RMS Reverse Voltage $V_{R(RMS)}$	DC Blocking Voltage V_R
B5819P1L	40V	28V	40V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Value
Average Rectified Current	$I_{F(AV)}$	1A
Power Dissipation	P_D	250mW

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

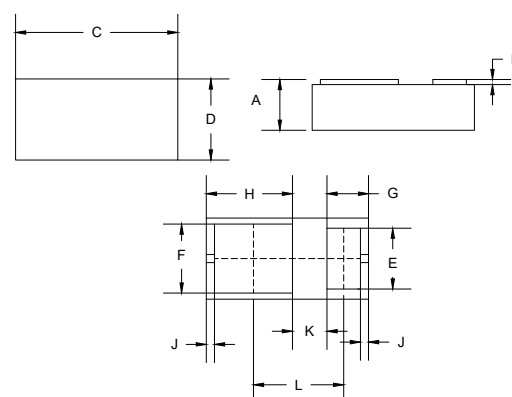
2. Valid Provided that Terminals are Kept at Ambient Temperature.

Internal Structure and Marking Code



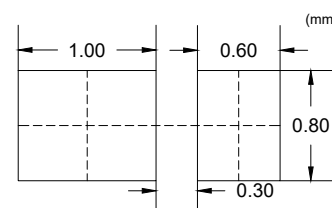
250mW, 40 Volt Schottky Barrier Diode

DFN1608-2



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.018	0.022	0.45	0.55	
B	0.000	0.004	0.01	0.09	
C	0.061	0.065	1.55	1.65	
D	0.030	0.033	0.75	0.85	
E	0.020	0.027	0.52	0.68	
F	0.024	0.030	0.60	0.76	
G	0.016		0.41		REF.
H	0.033		0.85		REF.
J	0.003		0.08		REF.
K	0.013		0.34		REF.
L	0.035	0.039	0.90	1.00	

Suggested Solder Pad Layout



Electrical Characteristics @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Breakdown Voltage	V_{BR}	$I_R=500\mu A$	40			V
Forward Voltage	V_F	$I_F=0.5A$		0.41		V
		$I_F=1A$		0.49	0.54	V
Reverse Current	I_R	$V_R=40V$			100	μA
Junction Capacitance	C_J	$V_R = 0V, f = 1MHz$			150	pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=10mA,$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$			25	ns

* Pulse Test: Pulse Width 300 μsec , Duty Cycle 2%

Curve Characteristics

Fig. 1 - Typical Instantaneous Forward Characteristics

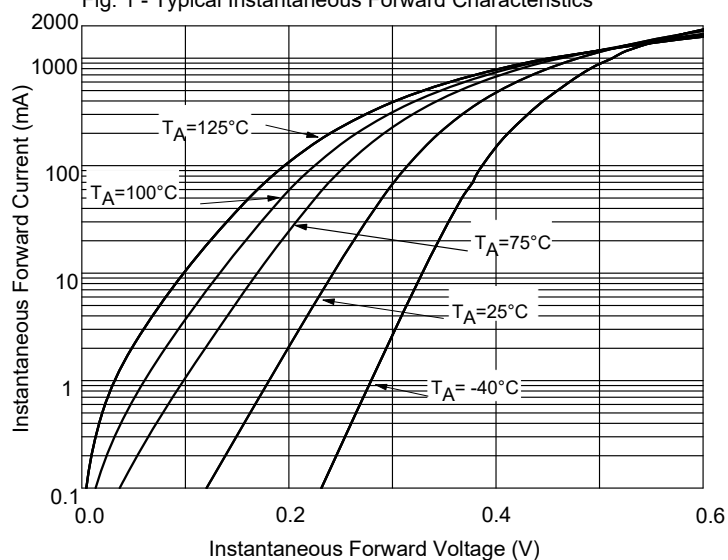


Fig. 2 - Typical Reverse Leakage Characteristics

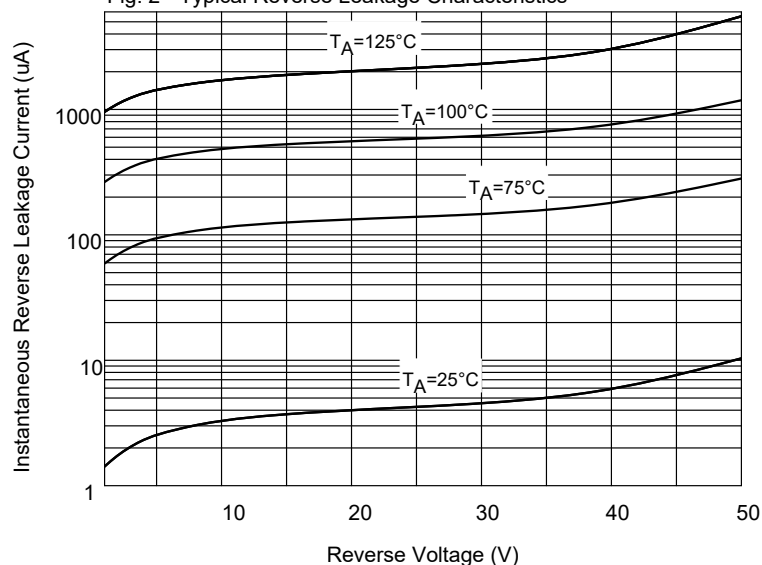


Fig. 3 - Capacitance Characteristics

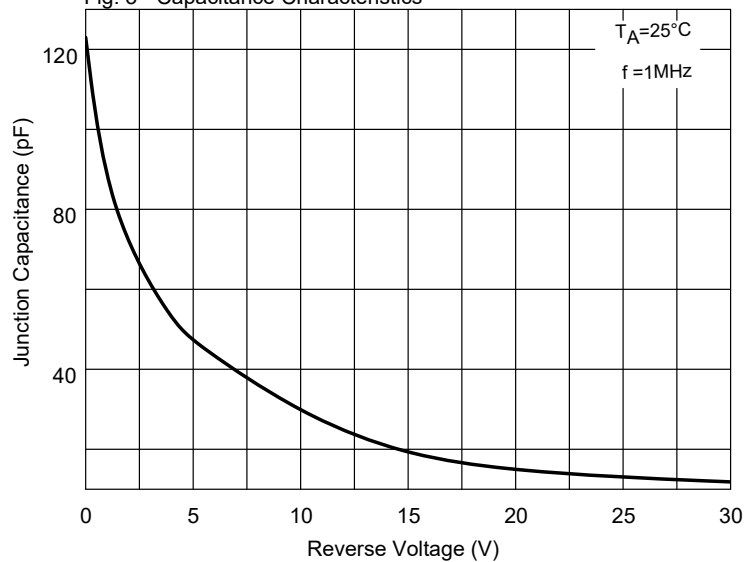
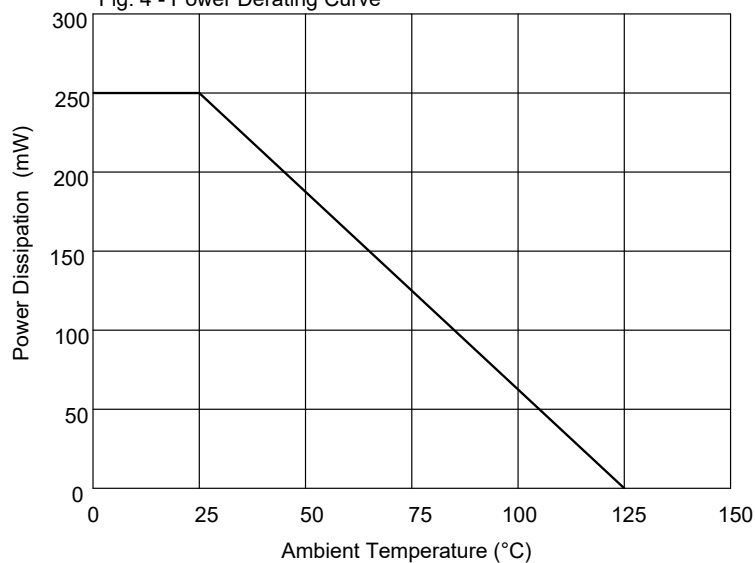


Fig. 4 - Power Derating Curve



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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