

**SURFACE MOUNT
FAST SWITCHING DIODE**

REVERSE VOLTAGE - **100 V**
POWER DISSIPATION - **400 mW**

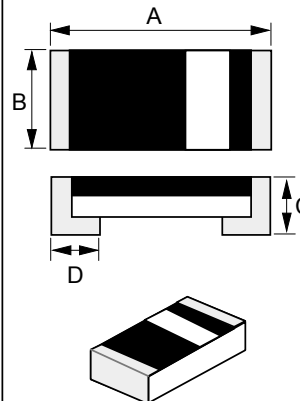
FEATURES

- For surface mounted application
- Silicon epitaxial planar diode
- High speed switching
- Ultra small surface mount package
- Low leakage current

MECHANICAL DATA

- Case : 1206
- Case Material: "Green" molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl)
- Terminals: Lead Free Plating
- Polarity : Color band denotes cathode
- Weight : Approx. 11.067mg

1206



1206		
Dim.	Min.	Max.
A	3.00	3.40
B	1.30	1.70
C	0.75	0.95
D	0.35	0.75
All Dimensions in millimeter		

Maximum Ratings and Thermal Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Units
Reverse Voltage	V_{RRM}	75	V
Non-Repetitive Peak Reverse Voltage	V_{RSM}	100	V
Forward Continuous Current	I_{FM}	300	mA
Average Rectified Output Current	I_{AV}	150	mA
Forward Surge Current at $T_p = 1.0 \text{ s}$ $T_p = 1.0 \text{ us}$	I_{FSM}	800 2.0	mA A
Total Power Dissipation	P_d	400	mW
Typical Thermal Resistance Junction to Ambient Junction to Case	$R_{\theta JA}$ $R_{\theta JC}$	375 120	$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +175	$^\circ\text{C}$

Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Parameters	Symbol	Test Condition	Min.	Max.	Unit
Reverse Breakdown Voltage	V_{BR}	$I_R = 1\text{uA}$	100		V
Forward Voltage	V_F	$I_F = 10\text{mA}$		1.0	V
Reverse Leakage Current	I_R	$V_R = 20\text{V}$ $V_R = 75\text{V}$ $V_R = 20\text{V}, T_J = 150^\circ\text{C}$ $V_R = 75\text{V}, T_J = 150^\circ\text{C}$		25 5.0 50 60	nA uA uA uA
Junction Capacitance	C_J	$V_R = 0\text{V}; F = 1\text{MHz}$		4	pF
Reverse Recovery Time	T_{rr}	$I_F = I_R = 10\text{mA}; R_L = 100\Omega$ measured at $I_R = 1\text{mA}$		4	ns

Fig.1 - FORWARD CURRENT DERATING CURVE

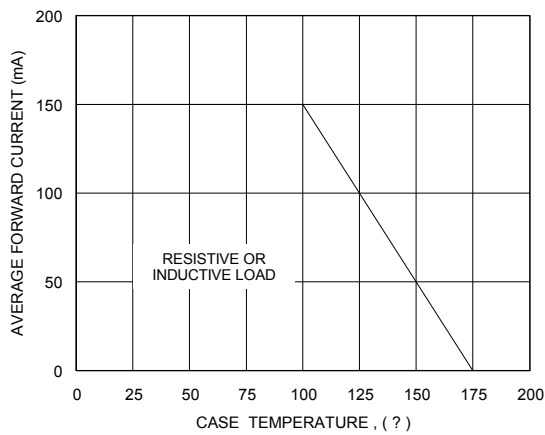


Fig.4 - TYPICAL REVERSE CHARACTERISTICS

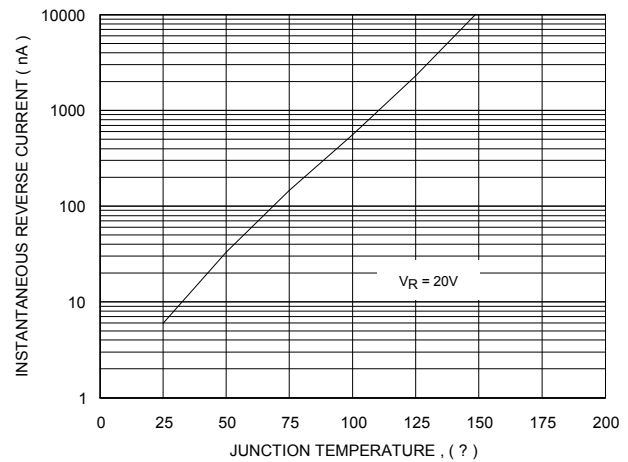


Fig.2 - POWER DISSIPATION DERATING CURVE

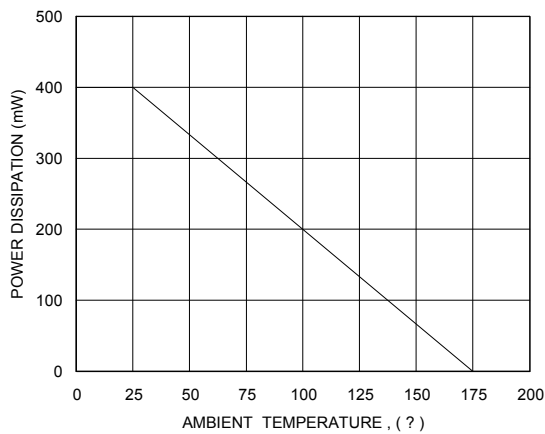


Fig.5-TYPICAL JUNCTION CAPACITANCE

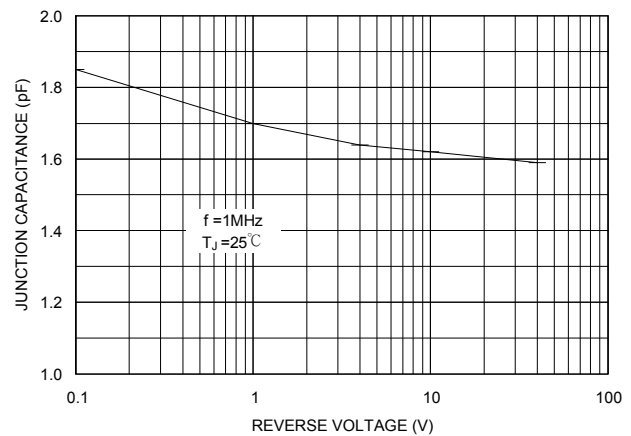
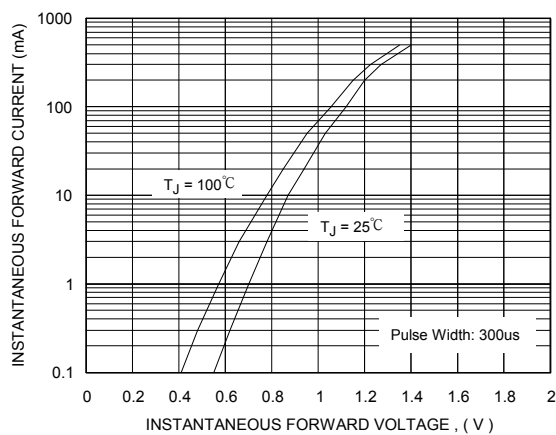
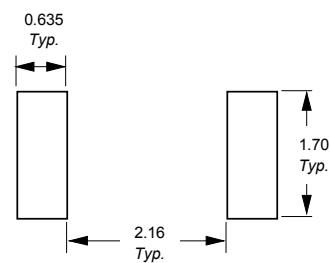


Fig.3-TYPICAL FORWARD CHARACTERISTICS

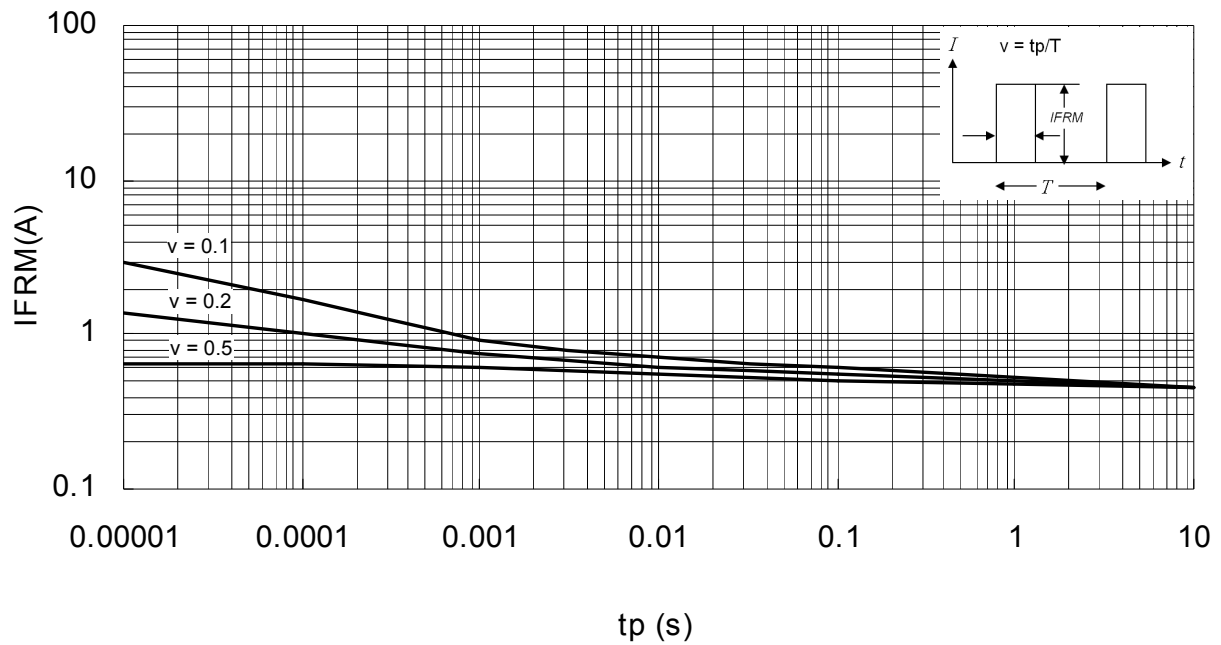


Recommended Mounting Pad Layout



All dimensions in millimeter

Fig.7 - Admissible Repetitive Peak Forward Current vs. Pulse Duration



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