



Micro Commercial Components
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1N4148

Features

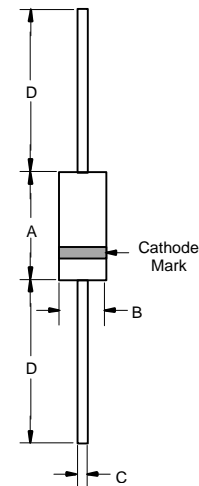
- Low Current Leakage
- Metalurgically Bonded Construction
- Low Cost

**500mW 100 Volt
 Silicon Epitaxial Diode**

Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 35°C/W Junction To Ambient

DO-35



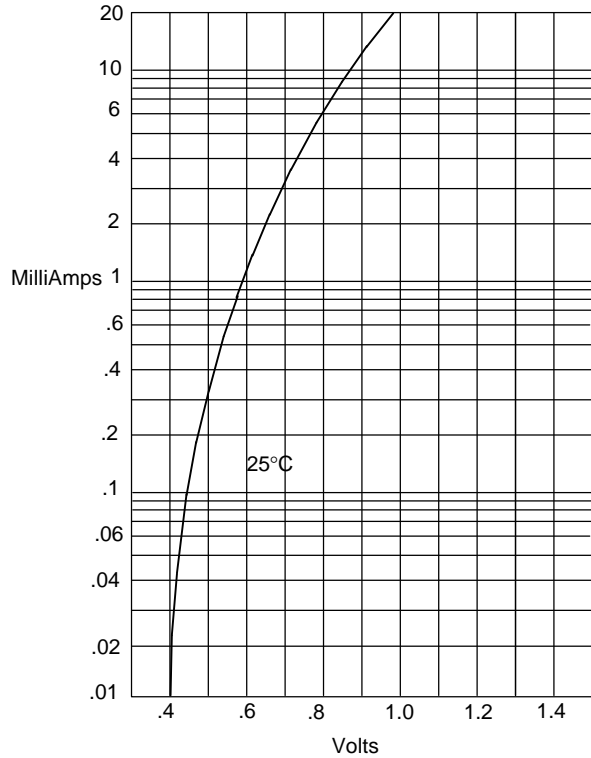
Electrical Characteristics @ 25°C Unless Otherwise Specified

Reverse Voltage	V_R	75V	
Peak Reverse Voltage	V_{RM}	100V	
Average Rectified Current	I_O	150mA	Resistive Load f > 50Hz
Power Dissipation	P_{TOT}	500mW	
Junction Temperature	T_J	200°C	
Peak Forward Surge Current	I_{FSM}	500mA	t < 1s
Maximum Instantaneous Forward Voltage	V_F	1.0V	$I_{FM} = 10mA$; $T_J = 25°C^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	25nA 50µA 5µA	$V_R = 20Volts$ $T_J = 25°C$ $T_J = 150°C$ $V_R = 75Volts$
Typical Junction Capacitance	C_J	4pF	Measured at 1.0MHz, $V_R = 4.0V$
Reverse Recovery Time	T_{rr}	4nS	$I_F = 10mA$ $V_R = 6V$ $R_L = 100Ω$

*Pulse test: Pulse width 300 µsec, Duty cycle 2%

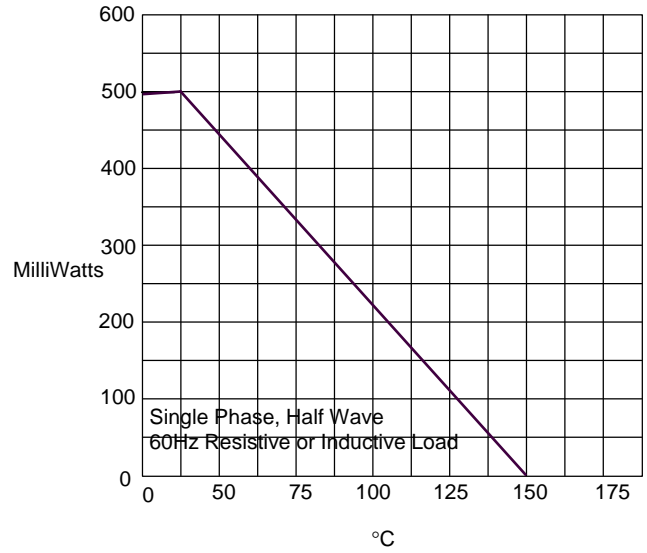
DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	---	.166	---	4.2	
B	---	.079	---	2.00	
C	---	.020	---	.52	
D	1.000	---	25.40	---	

Figure 1
Typical Forward Characteristics



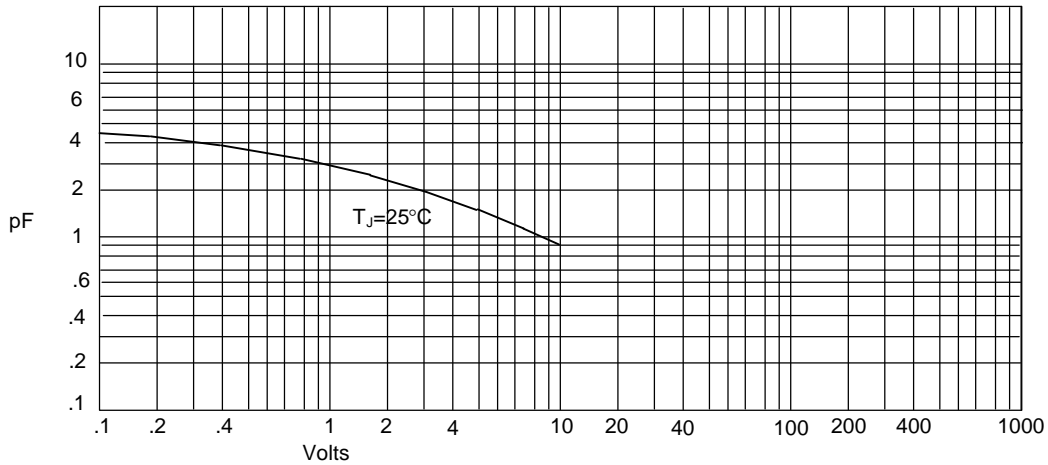
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



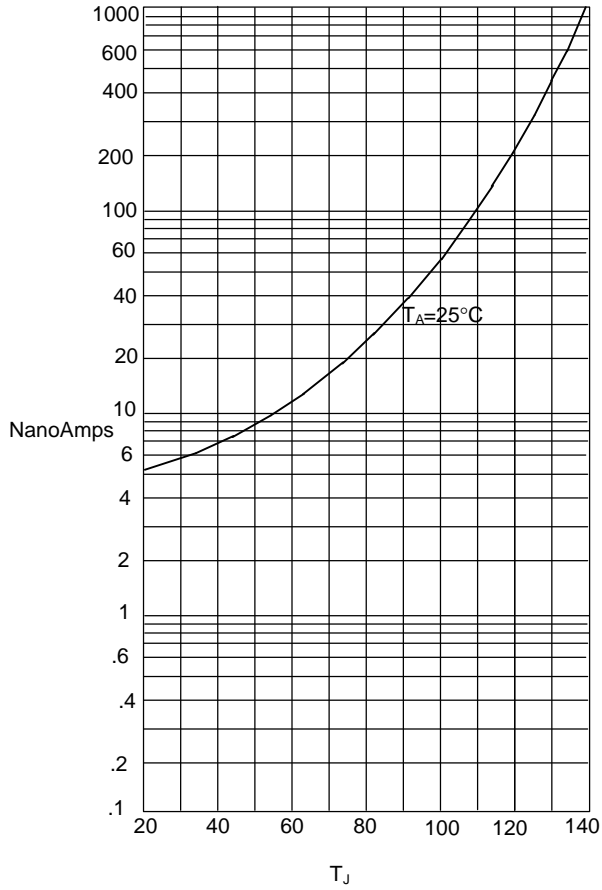
Admissible Power Dissipation - MilliWatts *versus*
Ambient Temperature - °C

Figure 3
Junction Capacitance



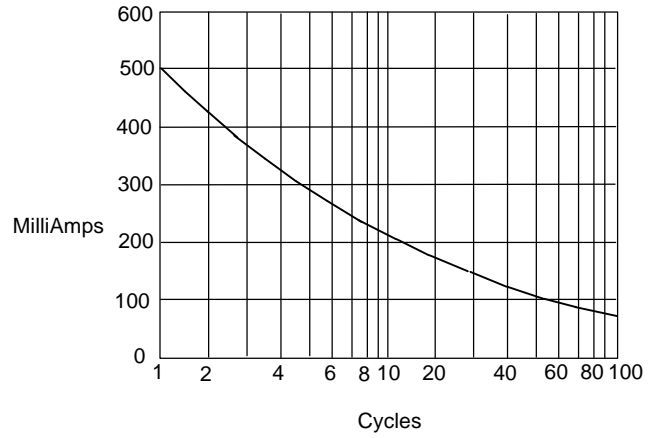
Junction Capacitance - pF *versus*
Reverse Voltage - Volts

Figure 4
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - NanoAmperes versus
Junction Temperature - °C

Figure 5
Peak Forward Surge Current



Peak Forward Surge Current - Amperes versus
Number Of Cycles At 60Hz - Cycles