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1N4148

Features

- High Reliability
- Low Current Leakage
- Metalurgically Bonded Construction

Maximum Ratings

- Operating Temperature: -65°C to +175°C
- Storage Temperature: -65°C to +175°C
- Maximum Thermal Resistance: 350K/W Junction To Ambient
Test Conditions: l = 4mm T_L = constant

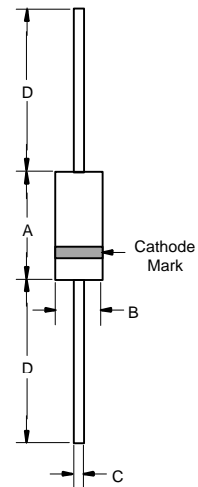
**500mW High Speed
Switching Diode
100 Volt**

Electrical Characteristics @ 25°C Unless Otherwise Specified

Reverse Voltage	V _R	75V	
Breakdown Voltage	V _{BR}	100V	I _R =100 μA
Average Forward Current	I _O	150mA	
Power Dissipation	P _{TOT}	500mW	
Junction Temperature	T _J	175°C	
Peak Forward Surge Current	I _{FSM}	2.0A	t _p = 1.0 μs
Maximum Instantaneous Forward Voltage	V _F	1.0V	I _{FM} = 10mA
Maximum DC Reverse Current At Rated DC Blocking Voltage	I _R	25nA 5.0μA 50μA	V _R =20V; T _J = 25°C V _R =75V; T _J = 25°C V _R =20V; T _J =150°C
Maximum Junction Capacitance	C _J	4.0pF	Measured at 1.0MHz, V _R =0V
Maximum Reverse Recovery Time	T _{rr}	4.0ns	I _F =10mA; V _R = 6V R _L =100Ω

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

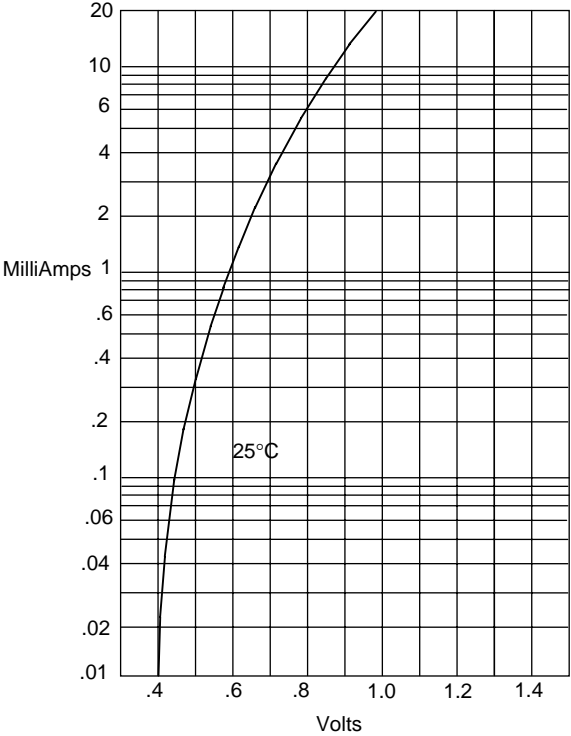
DO-35



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	---	

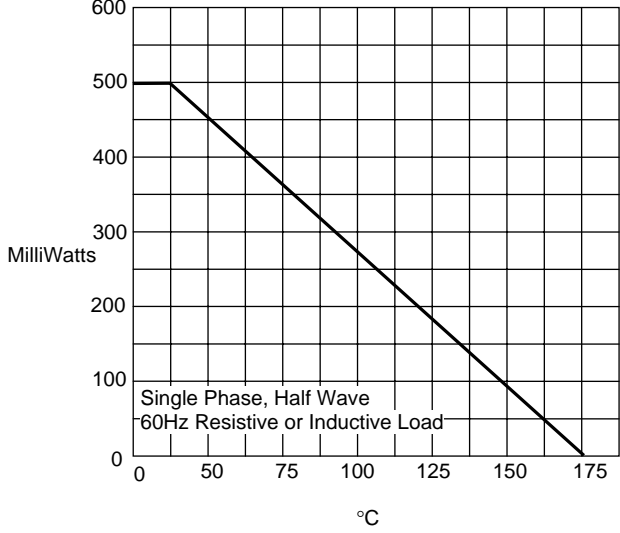
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Figure 1
Typical Forward Characteristics



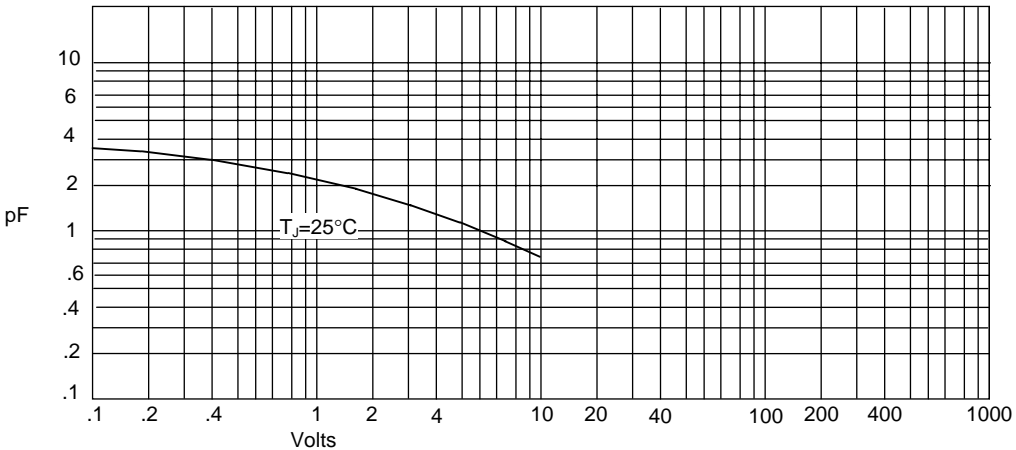
Instantaneous Forward Current - MilliAmperes versus
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



Admissible Power Dissipation - MilliWatts versus
Ambient Temperature - °C

Figure 3
Junction Capacitance

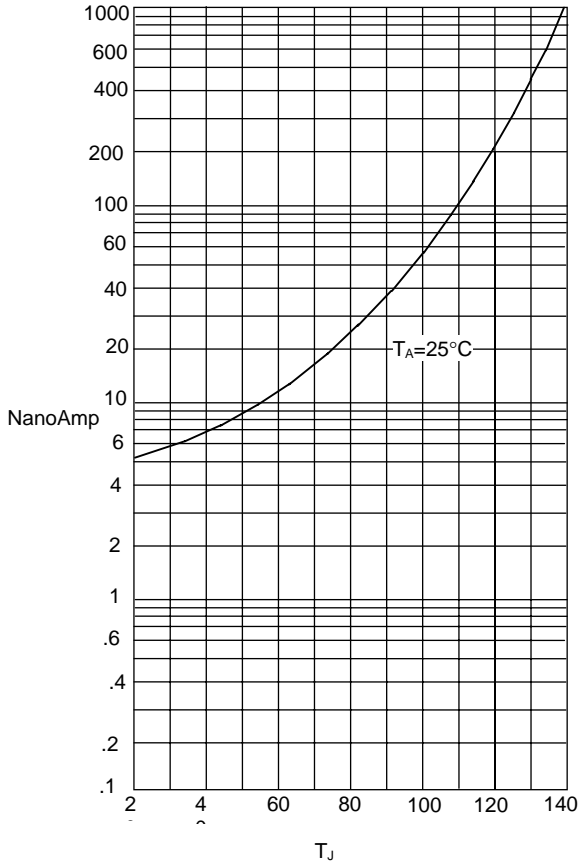


Junction Capacitance - pF versus
Reverse Voltage - Volts

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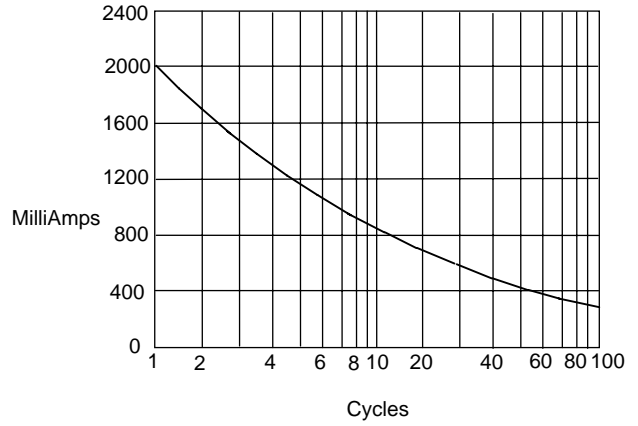


Figure 4
Typical Reverse Characteristics



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