



Micro Commercial Components



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1N4148

500mW High Speed
Switching Diode
100 Volt

Features

- High Reliability
- Low Current Leakage
- Metalurgically Bonded Construction
- Moisture Sensitivity Level 1
- Marking : Cathode band and type number
- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)

Maximum Ratings

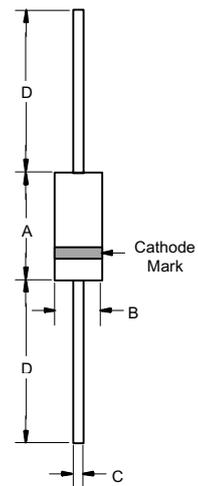
- Operating Temperature: -65°C to +175°C
- Storage Temperature: -65°C to +175°C
- Maximum Thermal Resistance: 300K/W Junction To Ambient

Electrical Characteristics @ 25°C Unless Otherwise Specified

Reverse Voltage	V_R	75V	
Breakdown Voltage	V_{BR}	100V	$I_R=100 \mu A$
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	$t_p = 1.0 \mu s$
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	$V_R=20V; T_J = 25^\circ C$ $V_R=75V; T_J = 25^\circ C$ $V_R=20V; T_J = 150^\circ C$
Maximum Junction Capacitance	C_J	4.0pF	Measured at 1.0MHz, $V_R=0V$
Maximum Reverse Recovery Time	T_{rr}	4.0ns	$I_F=10mA; V_R = 6V$ $R_L=100\Omega$

*Pulse test: Pulse width 300 µsec, Duty cycle 2%
Note: 1. Lead in Glass Exemption Applied, see EU Directive Annex 7(C)-I.

DO-35



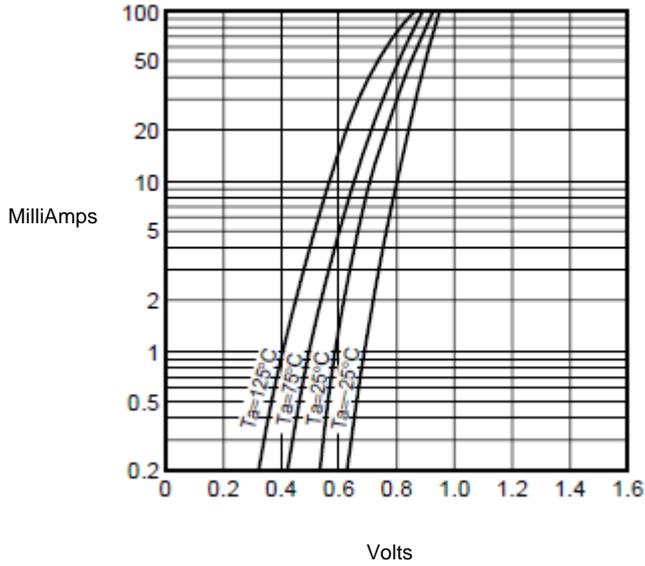
DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	---	.166	---	4.2	
B	---	.079	---	2.00	
C	---	.020	---	.52	
D	1.000	---	25.40	---	

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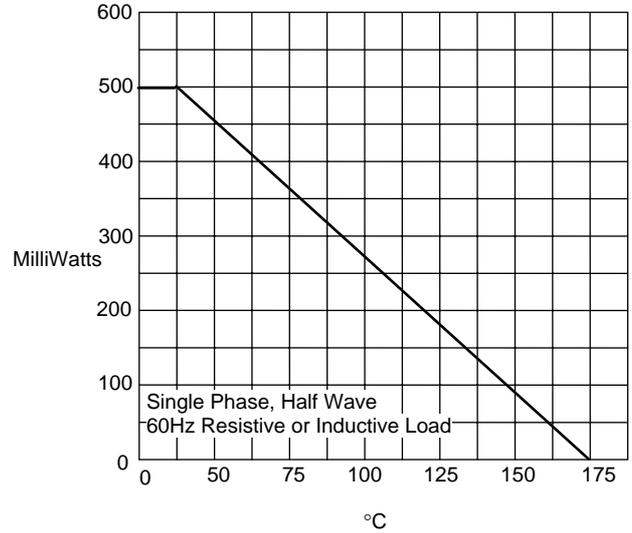
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Figure 1
Typical Forward Characteristics



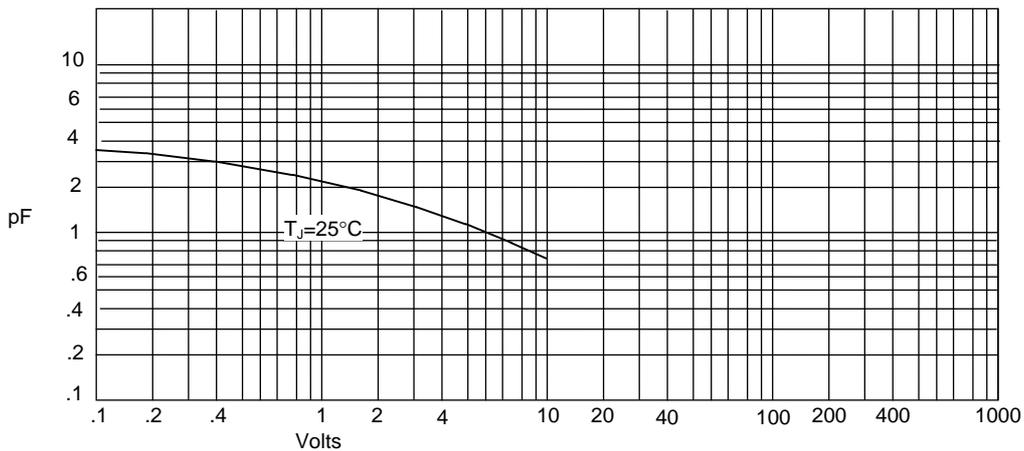
Instantaneous Forward Current - MilliAmperes versus Instantaneous Forward Voltage - Volts

Figure 2
Power Dissipation Derating Curve



Admissible Power Dissipation - MilliWatts versus Junction Temperature - °C

Figure 3
Junction Capacitance



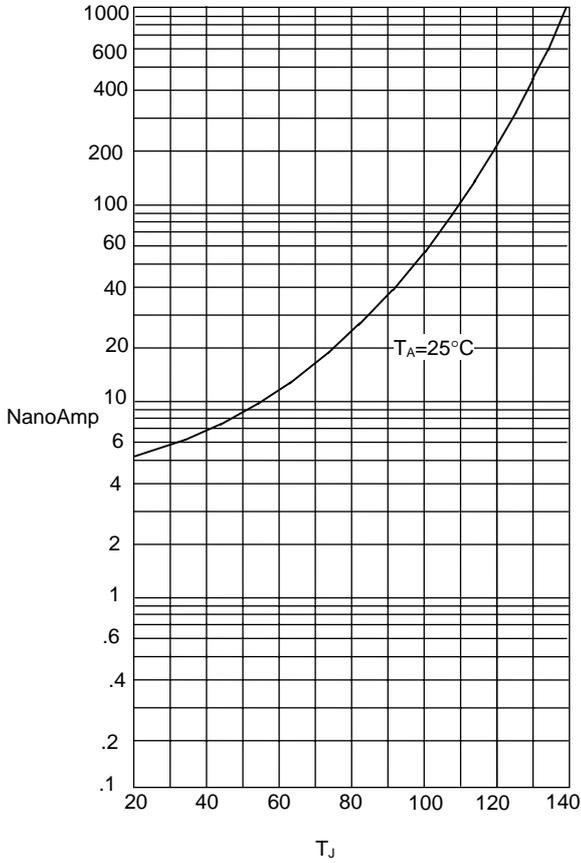
Junction Capacitance - pF versus Reverse Voltage - Volts

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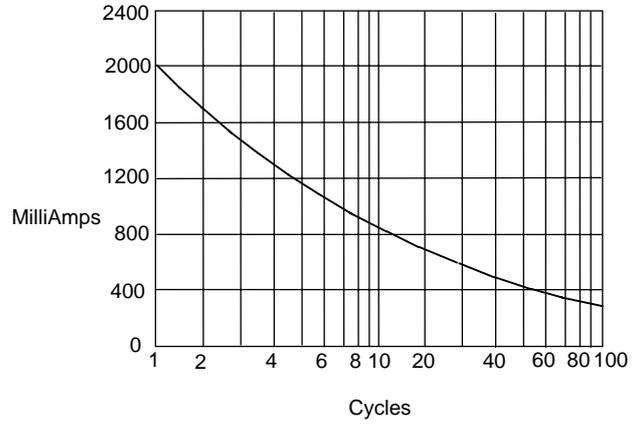
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Figure 4
Typical Reverse Characteristics



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



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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 10Kpcs/Reel
Part Number-AP	Ammo Packing: 5Kpcs/Ammo Box
Part Number-BP	Bulk: 100Kpcs/Carton

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