Shanghai Lunsure Electronic
Technology Co.,Ltd
Tel:0086-21-37185008
Fax:0086-21-57152769

RoHS COMPLIANT

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.)

Maximum Ratings

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

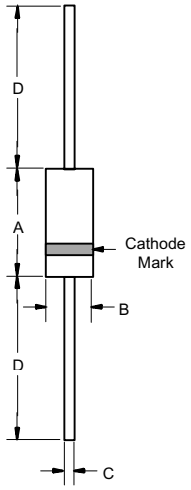
Electrical Characteristics @ 25℃ Unless Otherwise Specified

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℃	
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℃ V_R=75V; T_J = 25℃ V_R=20V; T_J =150℃
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%

Note: 1. Lead in Glass Exemption Applied, see EU Directive Annex 5.

DO-35



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

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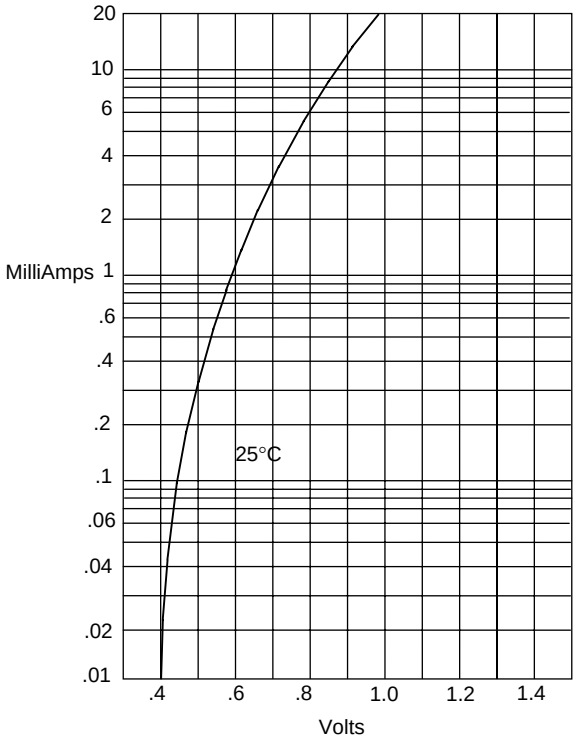
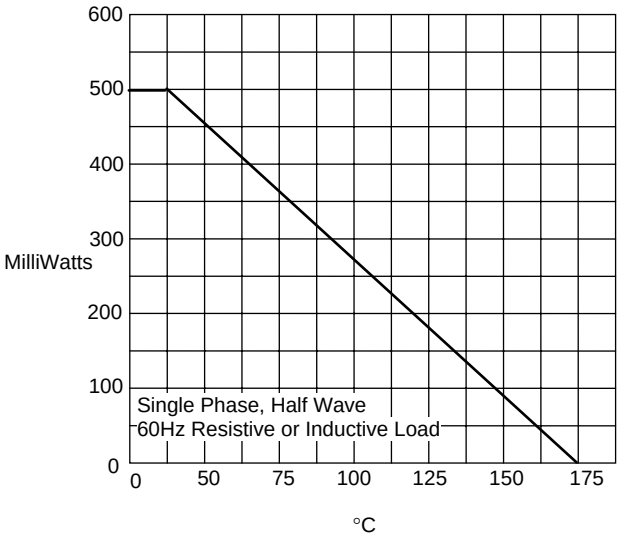
Figure 1
Typical Forward Characteristics



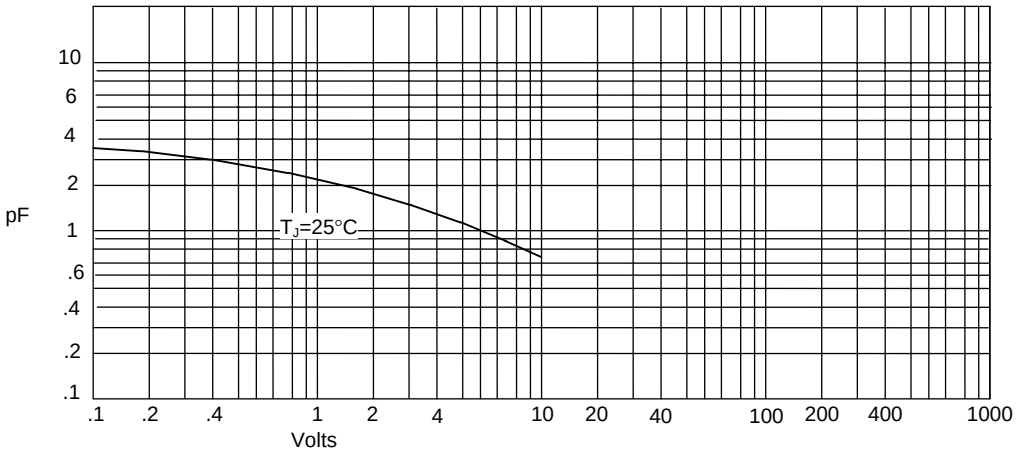
Instantaneous Forward Current - MilliAmperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Power Dissipation Derating Curve



Admissable Power Dissipation - MilliWatts *versus*
Junction Temperature - °C

Figure 3
Junction Capacitance



Junction Capacitance - pF *versus*
Reverse Voltage - Volts

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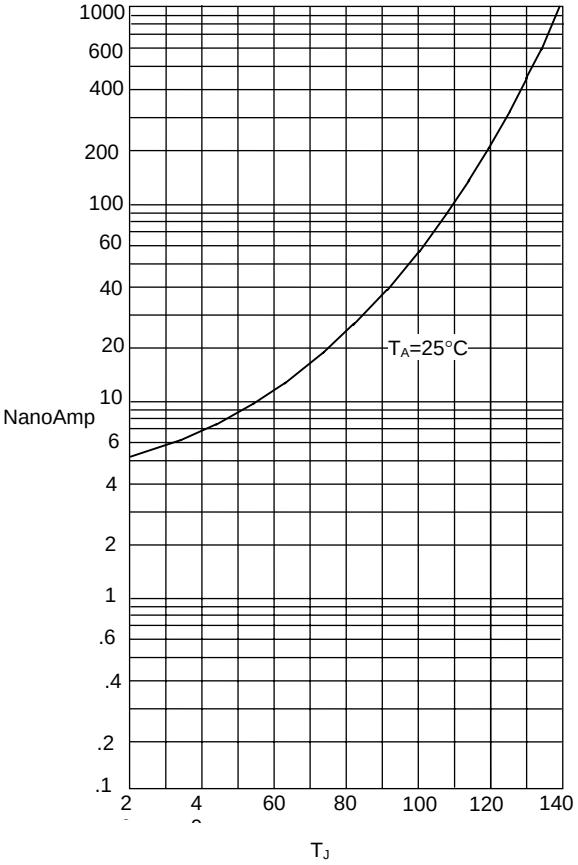
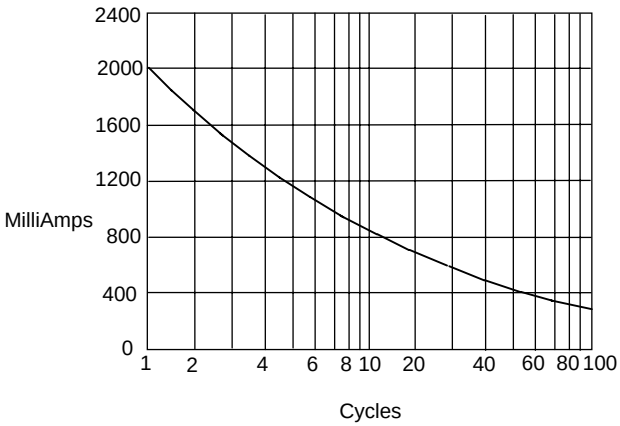
Figure 4
Typical Reverse Characteristics



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