### NOT RECOMMENDED FOR NEW DESIGNS **USE 1N4148W-TP**



**Micro Commercial Components** 

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**DL4148** 

## Features

- Low Current Leakage, Low Cost
- Compression Bond Construction
- **Surface Mount Applications**
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/Rohs Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)

## **Maximum Ratings**

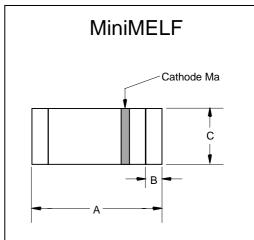
- Operating Temperature: -65  $^{\circ}$ C to +175  $^{\circ}$ C
- Storage Temperature: -65°C to +175°C
- Maximum Thermal Resistance: 500K/W Junction To Ambient Tested on PC Board  $50mm \times 50mm \times 1.6mm$

## Electrical Characteristics @ 25 $^{\circ}$ C Unless Otherwise Specified

Reverse Voltage	$V_R$	75V		
Breakdown Voltage	$V_{BR}$	100V	I <sub>R</sub> =100 μ A	
Average Forward Current	Io	150mA		
Power Dissipation	P <sub>TOT</sub>	500mW		
Junction Temperature	TJ	175°C		
Peak Forward Surge Current	I <sub>FSM</sub>	2.0A	$t_{p} = 1.0 \mus$	
Maximum Instantaneous Forward Voltage	V <sub>F</sub>	1.0V	I <sub>FM</sub> = 10mA	
Maximum DC Reverse Current At Rated DC Blocking Voltage	I <sub>R</sub>	25nA 5.0 μ A 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	CJ	4.0pF	Measured at 1.0MHz, V <sub>R</sub> =0V	
Maximum Reverse Recovery Time	T <sub>rr</sub>	4.0ns	$I_F=10\text{mA}; V_R=6V$ $R_L=100\Omega$	

Note:1.Lead in Glass Exemption Applied, see EU Directive Annex 7(c)-I.

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



DIMENSIONS							
	INCHES		MM				
DIM	MIN	MAX	MIN	MAX	NOTE		
Α	.130	.146	3.30	3.70			
В	.008	.016	.20	.40			
С	.055	.059	1.40	1.50	Ø		

SUGGESTED SOLDER

# PAD LAYOUT .165

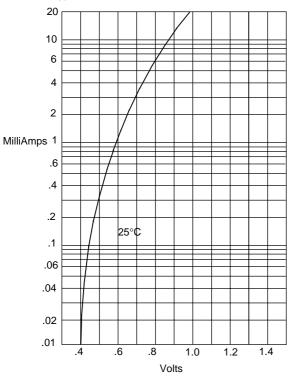
.030

# **DL4148**

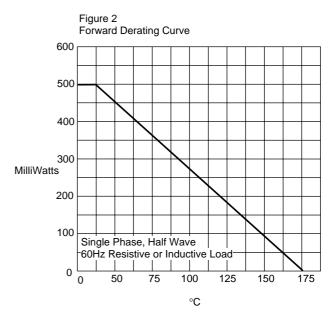


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Figure 1 Typical Forward Characteristics

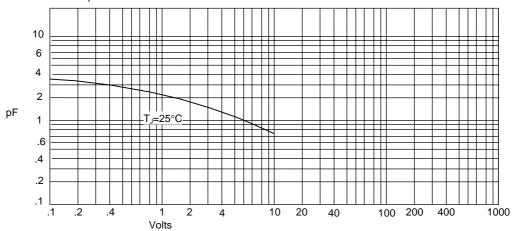


Instantaneous Forward Current - MilliAmperes *versus* Instantaneous Forward Voltage - Volts



Admissable Power Dissipation - MilliWatts versus Ambient Temperature -  $^{\circ}\text{C}$ 





Junction Capacitance - pF *versus* Reverse Voltage - Volts

# **DL4148**



Figure 4
Typical Reverse Characteristics

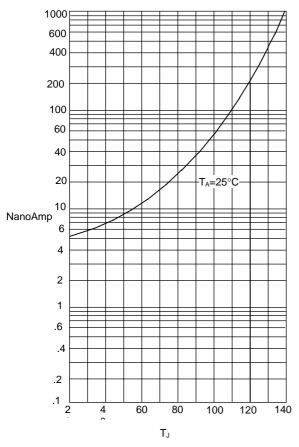


Figure 5
Peak Forward Surge Current

2400
2000
1600
1200
400
0
1 2 4 6 8 10 20 40 60 80 100

Cycles

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

Instantaneous Reverse Leakage Current - NanoAmperes versus Junction Temperature -  $^{\circ}$ C



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### **Ordering Information:**

Device	Packing
Part Number-TP	Tape&Reel: 2.5Kpcs/Reel

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