

DL4148

500mW 100 Volt Silicon Epitaxial Diode

Features

- Low Current Leakage
- Metalurgically Bonded Construction
- Low Cost
- Surface Mount Applications

Maximum Ratings

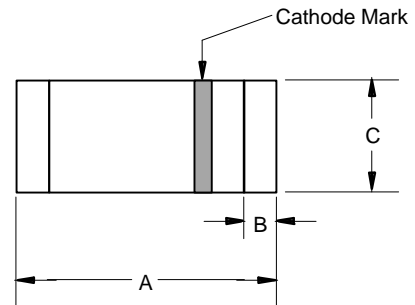
- Operating Temperature: -65°C to +175°C
- Storage Temperature: -65°C to +175°C
- Maximum Thermal Resistance; 35°C/W Junction To Ambient

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 $f > 50\text{Hz}$
Power Dissipation	P_{TOT}	500mW	
Junction Temperature	T_J	200°C	
Peak Forward Surge Current	I_{FSM}	500mA	8.3ms, half sine
Maximum Instantaneous Forward Voltage	V_F	1.0V	$I_{FM} = 10\text{mA};$ $T_J = 25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	25nA 50µA	$V_R = 20\text{Volts}$ $T_J = 25^\circ\text{C}$ $T_J = 150^\circ\text{C}$
Typical Junction Capacitance	C_J	4pF	Measured at 1.0MHz, $V_R = 4.0\text{V}$
Reverse Recovery Time	T_{rr}	4nS	$I_F = 10\text{mA}$ $V_R = 6\text{V}$ $R_L = 100\Omega$

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

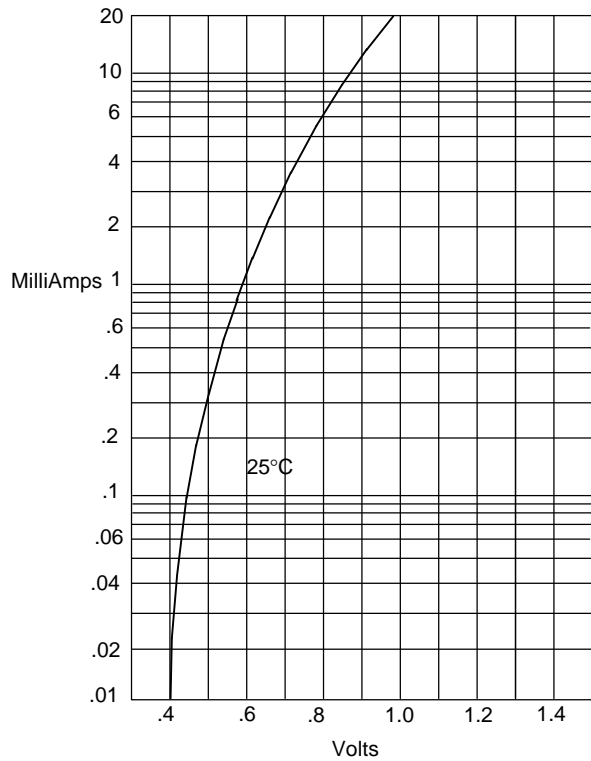
MINIMELF



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.134	.142	3.40	3.60	
B	.008	.016	.20	.40	
C	.055	.059	1.40	1.50	∅

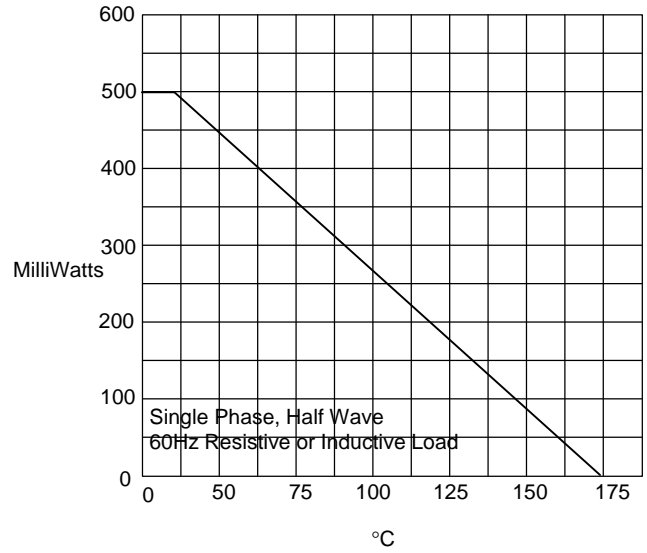
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Figure 1
Typical Forward Characteristics



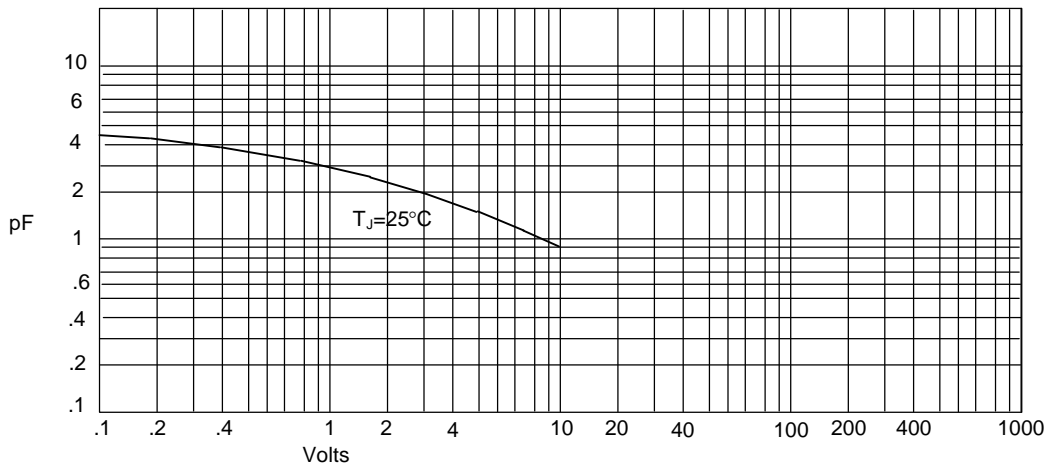
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



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

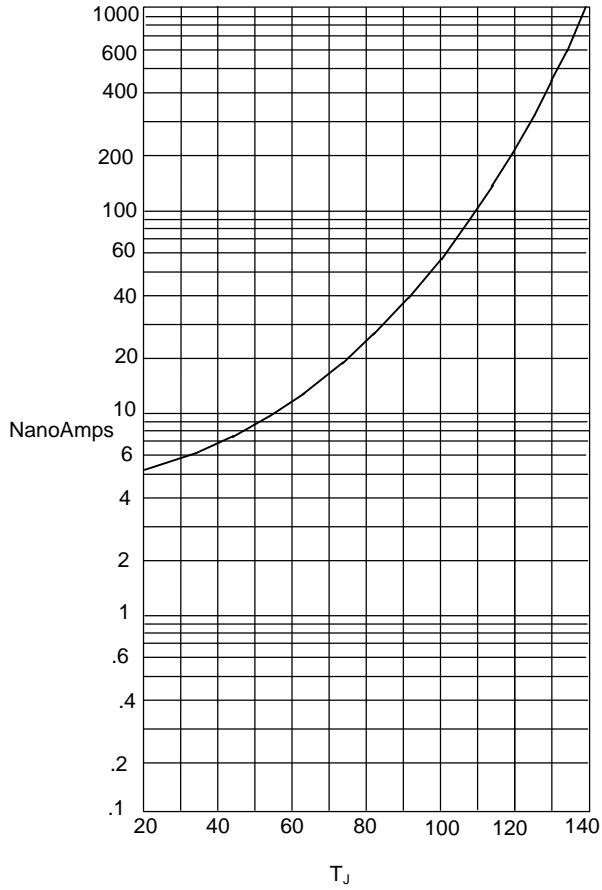
Figure 3
Junction Capacitance



Junction Capacitance - pF *versus*
Reverse Voltage - Volts

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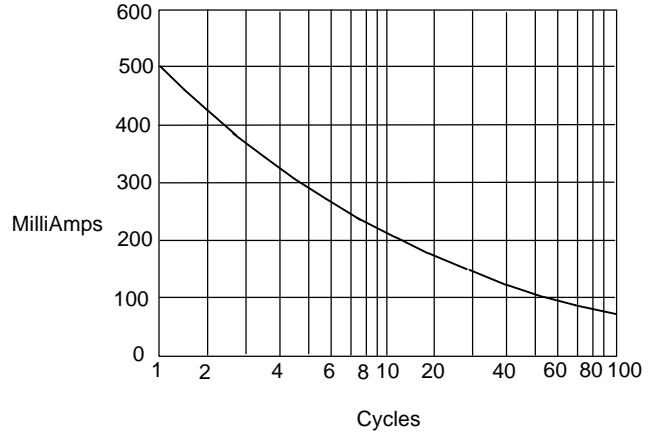
Figure 4
Typical Reverse Characteristics



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

$T_A=25^\circ\text{C}$
 $T_A=100^\circ\text{C}$

Figure 5
Peak Forward Surge Current



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