



Micro Commercial Components  
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# DL914

## 500mW 100 Volt Silicon Switching Diode

### Features

- Fast Switching Speed
- Low Current Leakage
- Low Cost
- Compression Bond Construction
- Surface Mount Application

### Maximum Ratings

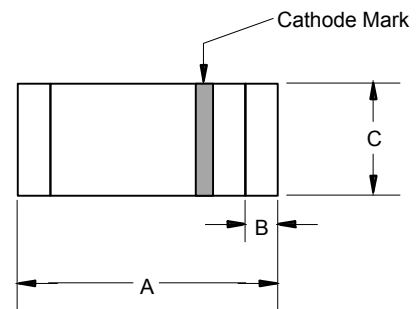
- Operation & Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance: 35°C/W Junction to Ambient

Electrical Characteristics @ 25°C Unless Otherwise Specified

Reverse Volt.	$V_R$	75V	
Peak Reverse Volt.	$V_{RM}$	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 Volt.	$V_F$	1.0V	$I_{FM}=10\text{mA};$ $T_J=25\text{oC}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	25nA 50uA	$V_R=20\text{V}$ $T_J=25\text{°C}$ $T_J=150\text{°C}$
Typical Junction Capacitance	$C_J$	4pF	Measured at 1.0MHz, $V_R=4.0\text{V}$
Reverse Recovery Time	$T_{rr}$	4nS	$I_F=10\text{mA}$ $V_R=6\text{V}$ $R_L=100$ OHMS

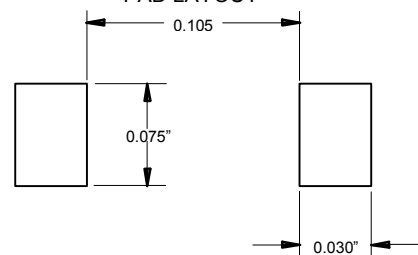
Pulse test: Pulse width 300 usec, Duty cycle 2%.

### MINIMELF



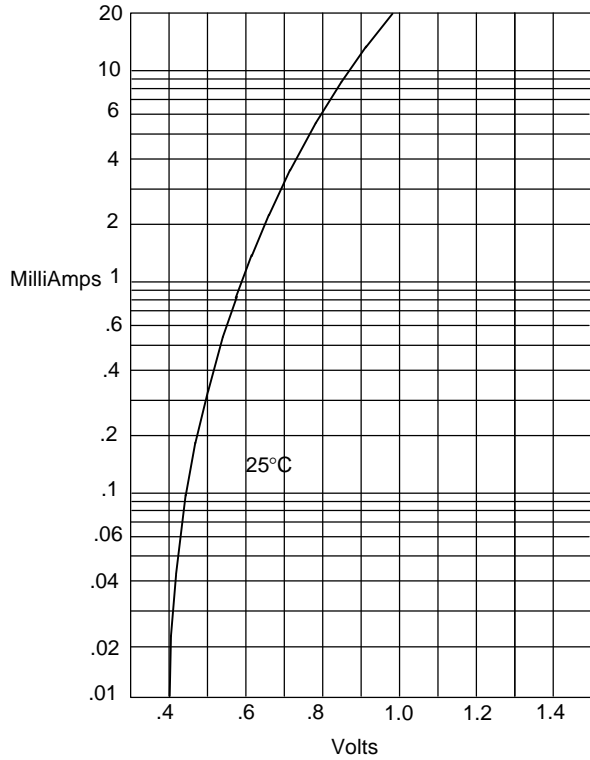
DIM	DIMENSION				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.134	.142	3.40	3.60	
B	.008	.016	0.20	0.40	
C	.055	.059	1.40	1.50	

### SUGGESTED SOLDER PAD LAYOUT



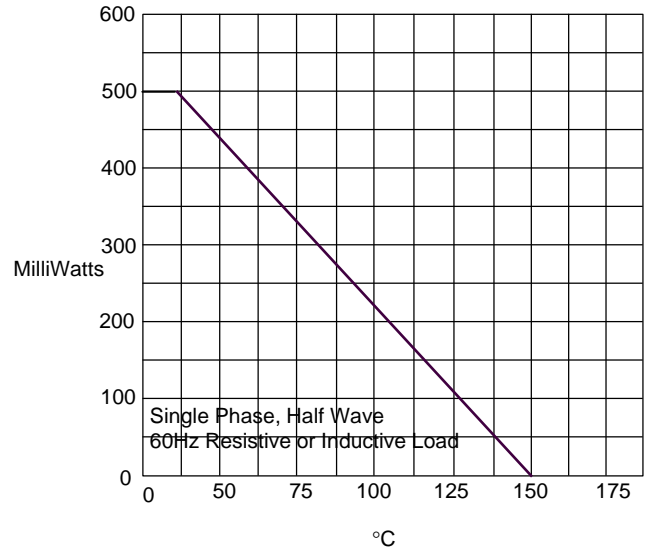
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Figure 1  
Typical Forward Characteristics



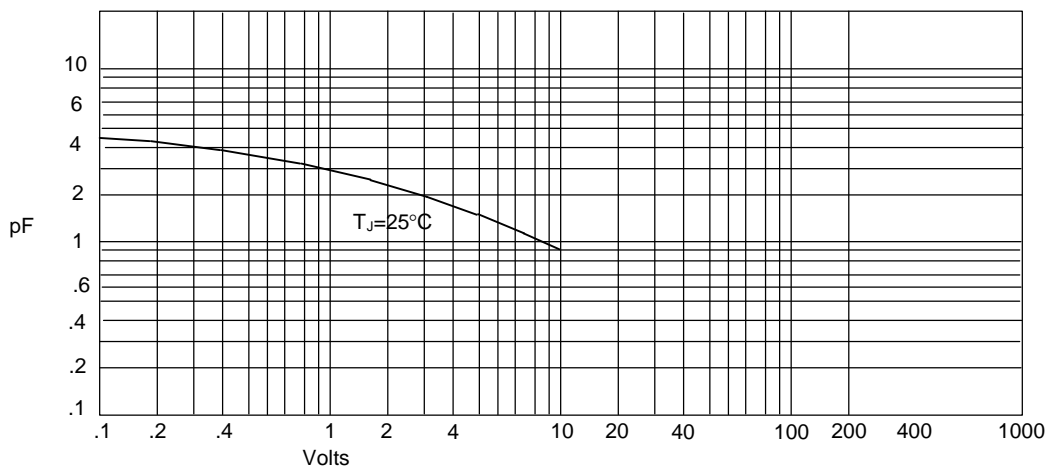
Instantaneous Forward Current - Amperes *versus*  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



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

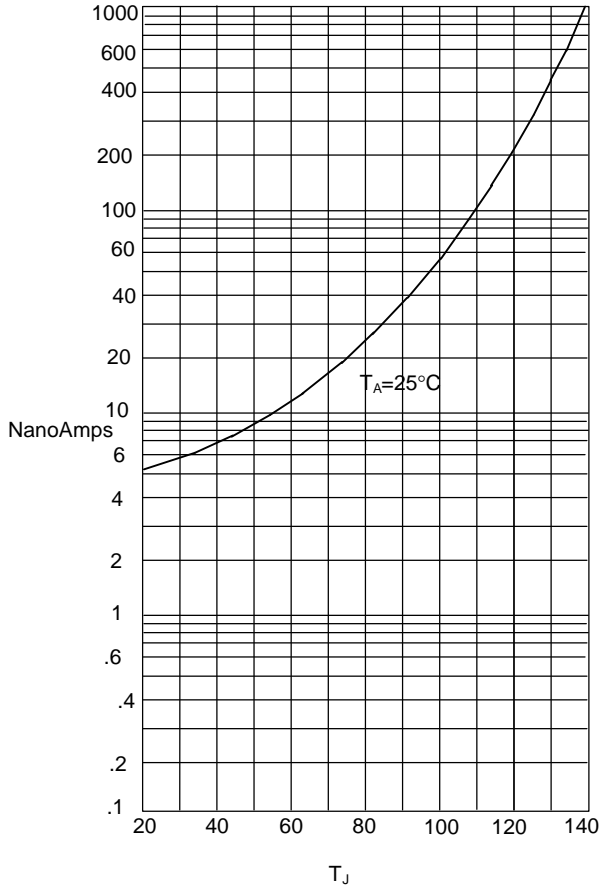
Figure 3  
Junction Capacitance



Junction Capacitance - pF *versus*  
Reverse Voltage - Volts

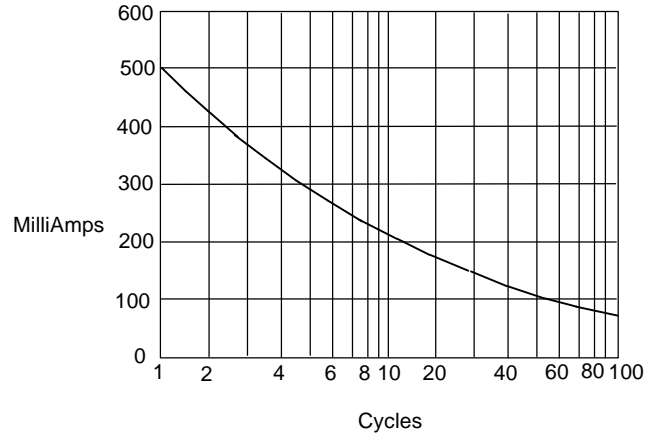
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Figure 4  
Typical Reverse Characteristics



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

Figure 5  
Peak Forward Surge Current



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