

DL4454

Silicon Switching Diode 500 mW 75 Volt

Features

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

Maximum Ratings

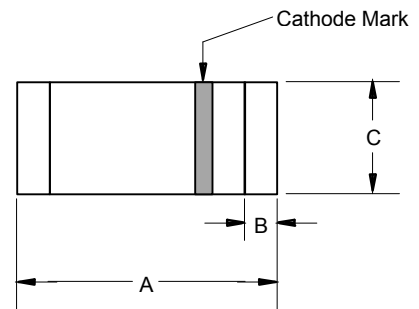
- Operation & Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance: 400K/W Junction to Ambient

Electrical Characteristics @ 25°C Unless Otherwise Specified

Reverse Volt.	V_R	50V	
Peak Reverse Volt.	V_{RM}	75V	
Average Rectified Current	I_O	150mA	Resistive Load $f > 50\text{Hz}$
Power Dissipation	P_{TOT}	500mW	
Junction Temperature	T_J	175°C	
Peak Forward Surge Current	I_{FSM}	500mA	8.3ms, half sine
Maximum Instantaneous Forward Volt.	V_F	1.0V	$I_{FM}=10\text{mA};$ $T_J=25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Volt.	I_R	0.1uA	$V_R=50\text{V}$ $T_J=25^\circ\text{C}$
Typical Junction Capacitance	C_J	2pF	Measured at 1.0MHz, $V_R=4.0\text{V}$
Reverse Recovery Time	T_{rr}	4nS	$I_F=10\text{mA}$ $V_R=6\text{V}$ $I_R=1\text{mA}$ $R_L=100\text{OHMS}$

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

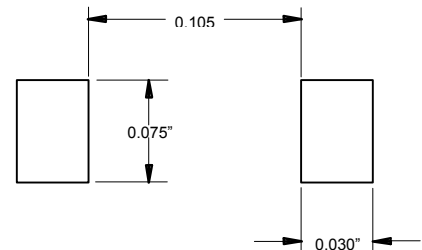
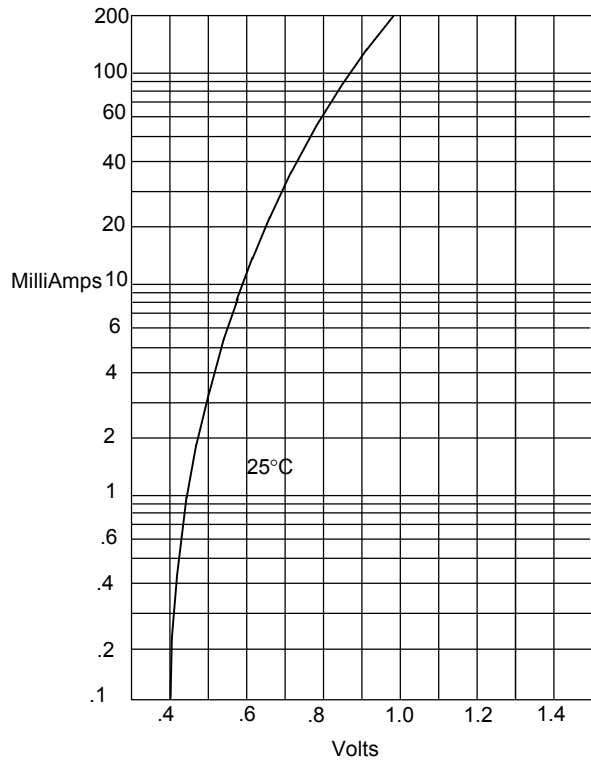
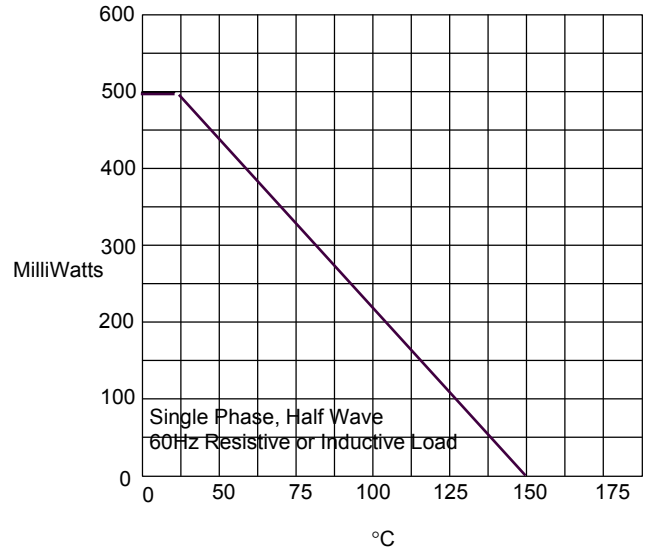


Figure 1
Typical Forward Characteristics



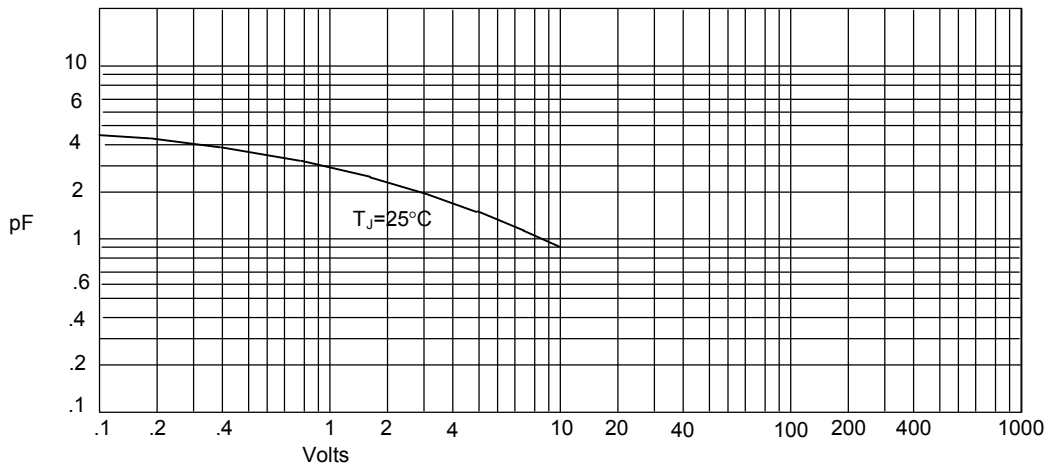
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



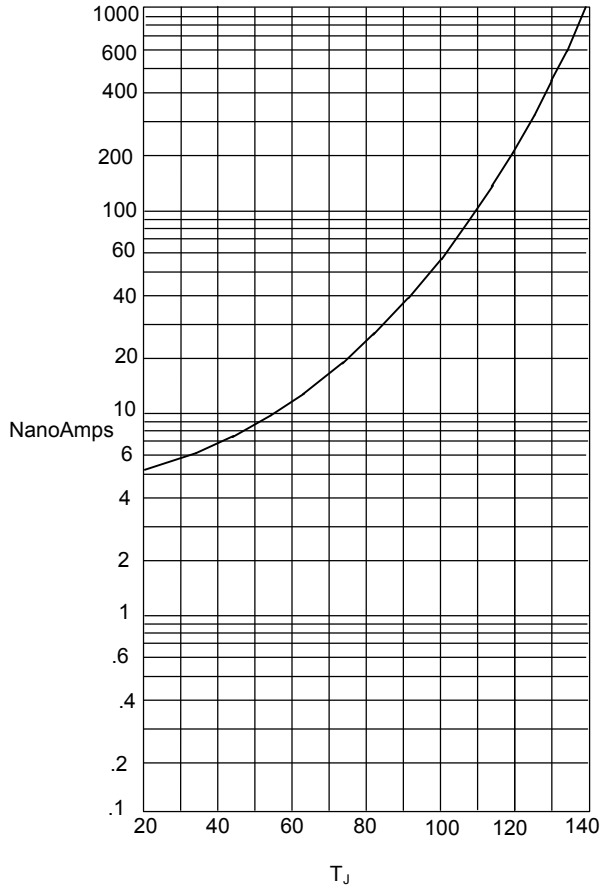
Admissible Power Dissipation - MilliWatts *versus*
Ambient Temperature - °C

Figure 3
Junction Capacitance



Junction Capacitance - pF *versus*
Reverse Voltage - Volts

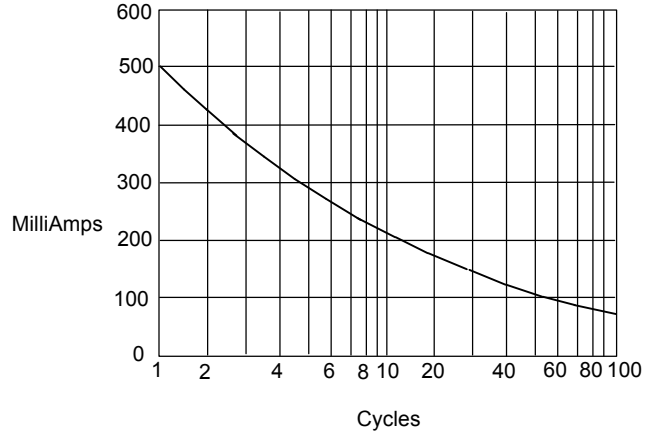
Figure 4
Typical Reverse Characteristics



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

T_A=25°C
T_A=100°C

Figure 5
Peak Forward Surge Current



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