

DL4001 thru DL4007

Features

- Glass Passivated Junction
- Low Current Leakage
- Metalurgically Bonded Construction
- Surface Mount Applications

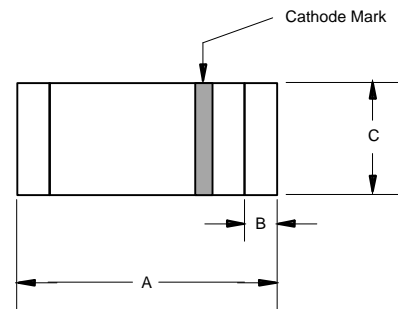
1 Amp Glass Passivated Rectifier 50 - 1000 Volts

Maximum Ratings

- Operating Temperature: -65°C to +175°C
- Storage Temperature: -65°C to +175°C
- Maximum Thermal Resistance; 20°C/W Junction To Lead

Microsemi Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
DL4001	None	50V	35V	50V
DL4002	None	100V	70V	100V
DL4003	None	200V	140V	200V
DL4004	None	400V	280V	400V
DL4005	None	600V	420V	600V
DL4006	None	800V	560V	800V
DL4007	None	1000V	700V	1000V

MELF

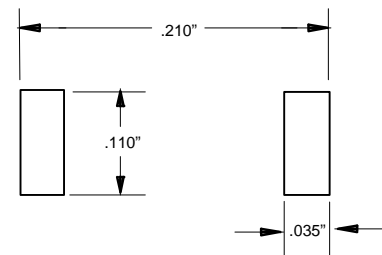


DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.190	.205	4.80	5.20	
B	---	.022	---	.55	Nominal
C	.095	.105	2.40	2.67	∅

Electrical Characteristics @ 25°C Unless Otherwise Specified

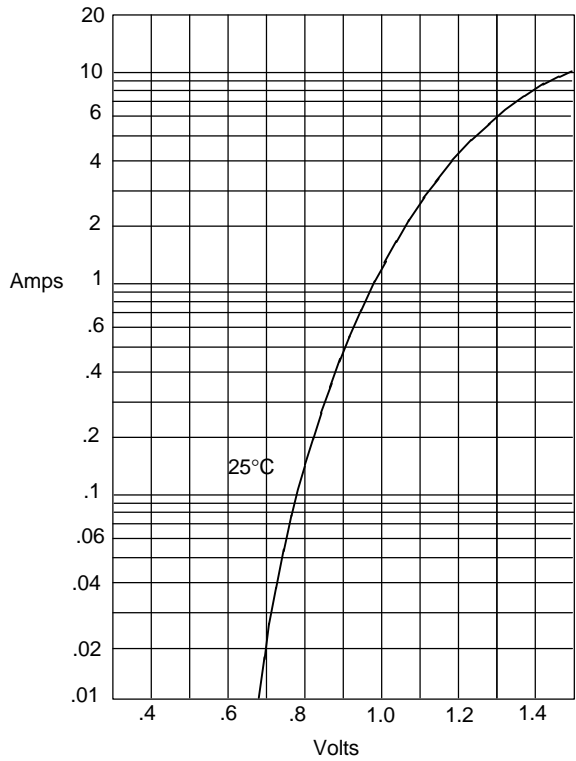
Average Forward Current	$I_{F(AV)}$	1.0A	$T_A = 75^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	30A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	V_F	1.1V	$I_{FM} = 1.0\text{A}; T_J = 25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	5.0 μA 50 μA	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$
Typical Junction Capacitance	C_J	15pF	Measured at 1.0MHz, $V_R=4.0\text{V}$

SUGGESTED SOLDER PAD LAYOUT



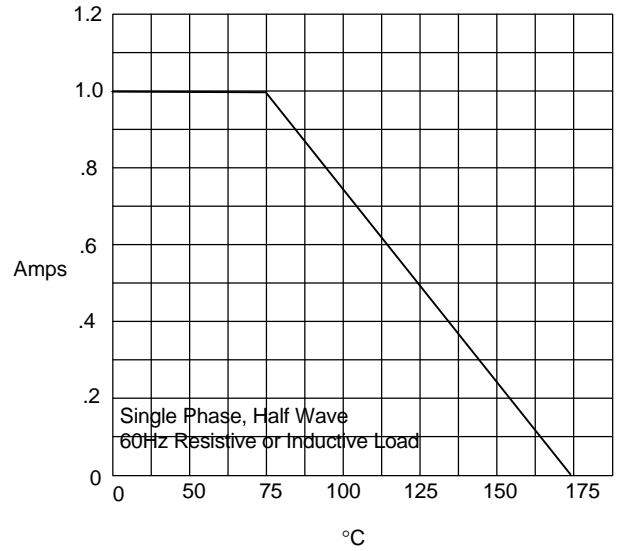
*Pulse test: Pulse width 300 μsec , Duty cycle 2%

Figure 1
Typical Forward Characteristics



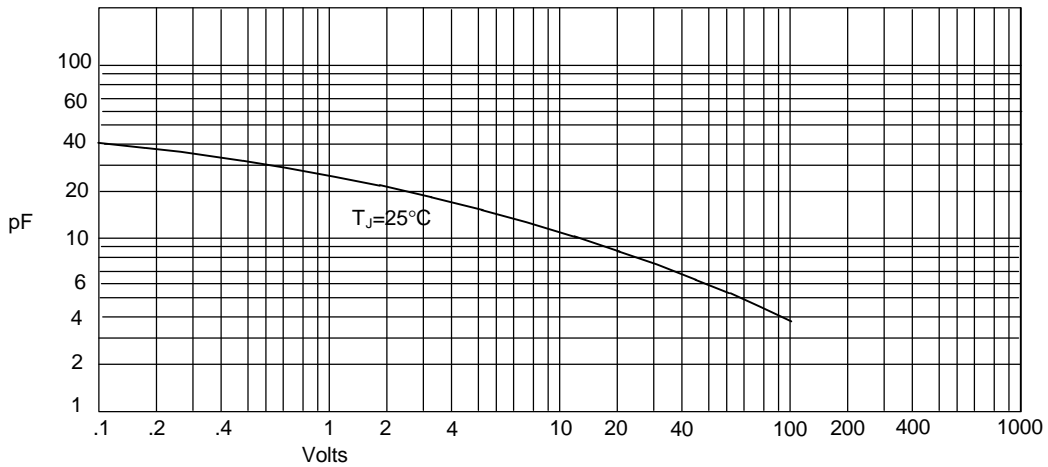
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



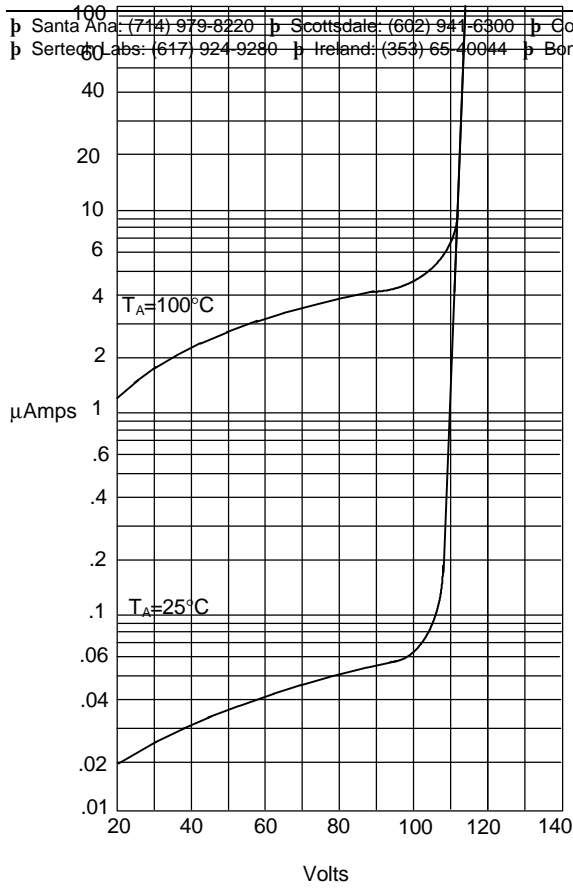
Average Forward Rectified Current - Amperes *versus*
Ambient Temperature - °C

Figure 3
Junction Capacitance



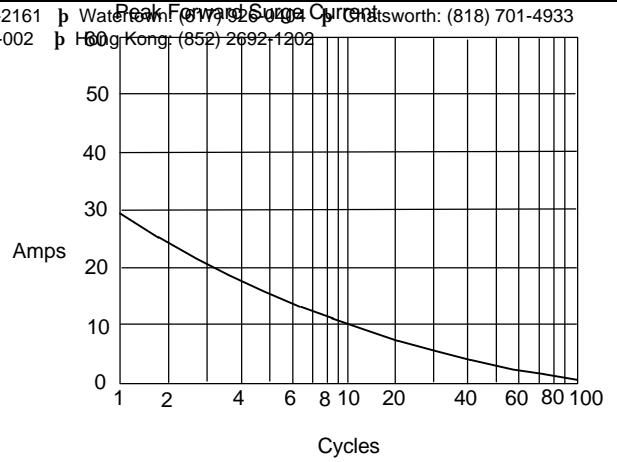
Junction Capacitance - pF *versus*
Reverse Voltage - Volts

DL4007
Figure 4
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperes versus Percent Of Rated Peak Reverse Voltage - Volts

Figure 5
Peak Forward Surge Current



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