

DLFR106 thru DLFR107

Features

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

Maximum Ratings

- Operating Temperature: -65°C to +175°C
- Storage Temperature: -65°C to +175°C
- Maximum Thermal Resistance; 30°C/W Junction To Lead

Microsemi Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
DLFR106	---	800V	560V	800V
DLFR107	---	1000V	700V	1000V

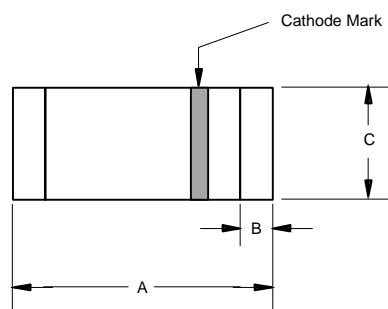
Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0A	$T_A = 55^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	30A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	V_F	1.3V	$I_{FM} = 1.0\text{A};$ $T_J = 25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	5.0 μA 100 μA	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$
Maximum Reverse Recovery Time DLFR106 DLFR107	T_{rr}	250ns 500ns	$I_F = 0.5\text{A},$ $I_R = 1.0\text{A},$ $I_{rr} = 0.25\text{A}$
Typical Junction Capacitance	C_J	15pF	Measured at 1.0MHz, $V_R = 4.0\text{V}$

*Pulse test: Pulse width 300 μsec , Duty cycle 1%

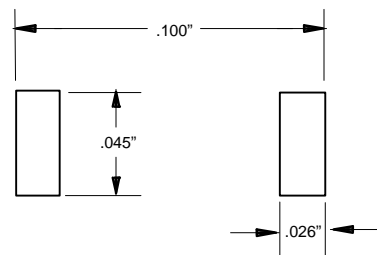
1 Amp Glass Passivated, Fast Recovery Rectifier 800 - 1000 Volts

MELF



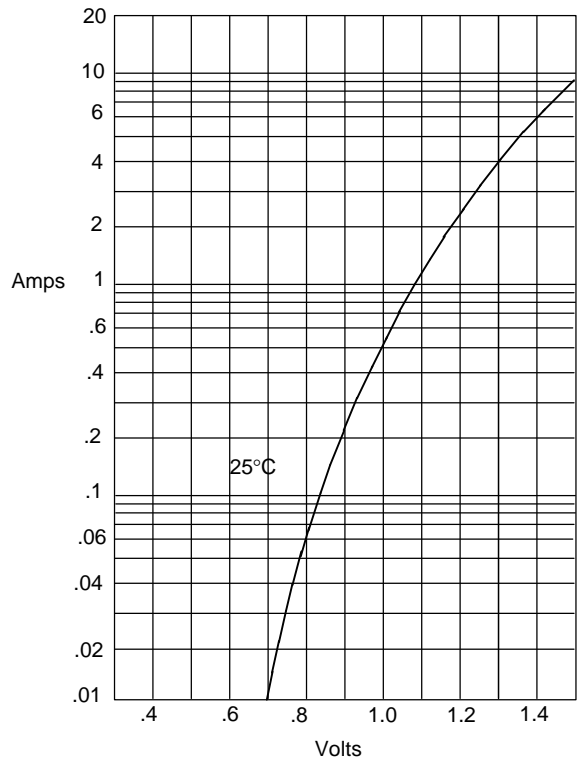
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.190	.205	4.80	5.20	
B	---	.022	---	.55	Nominal
C	.095	.099	2.40	2.50	\varnothing

SUGGESTED SOLDER PAD LAYOUT



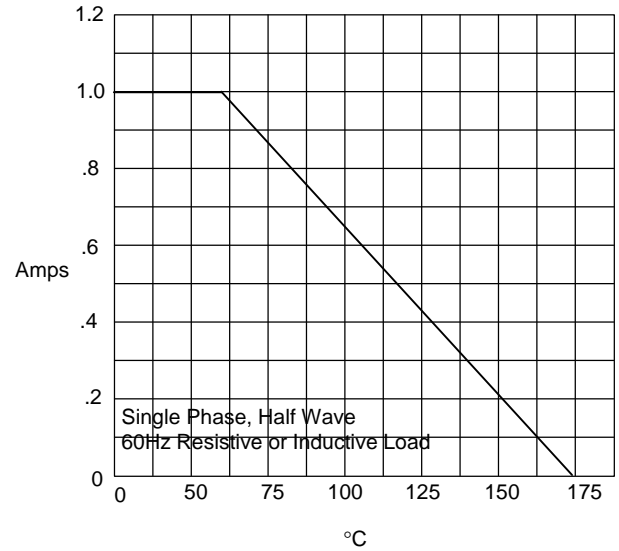
DLFR106 thru DLFR107

Figure 1
Typical Forward Characteristics



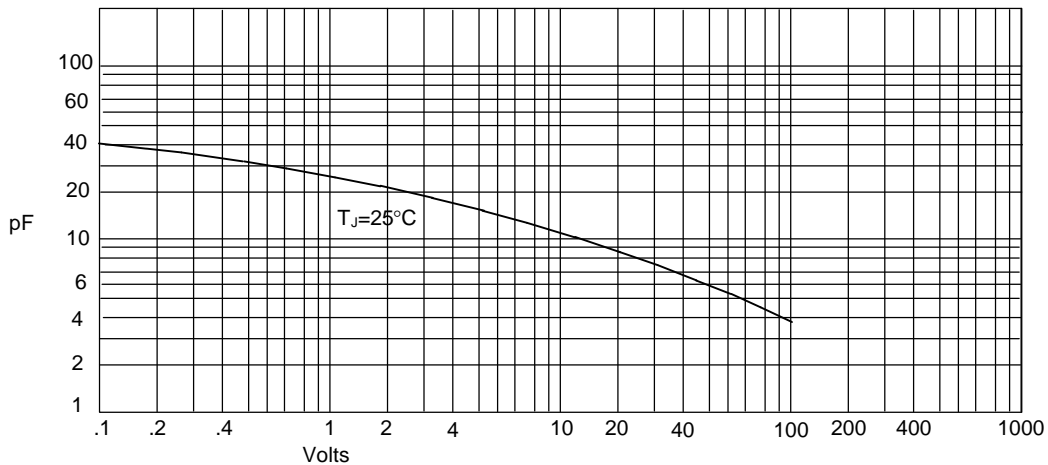
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



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

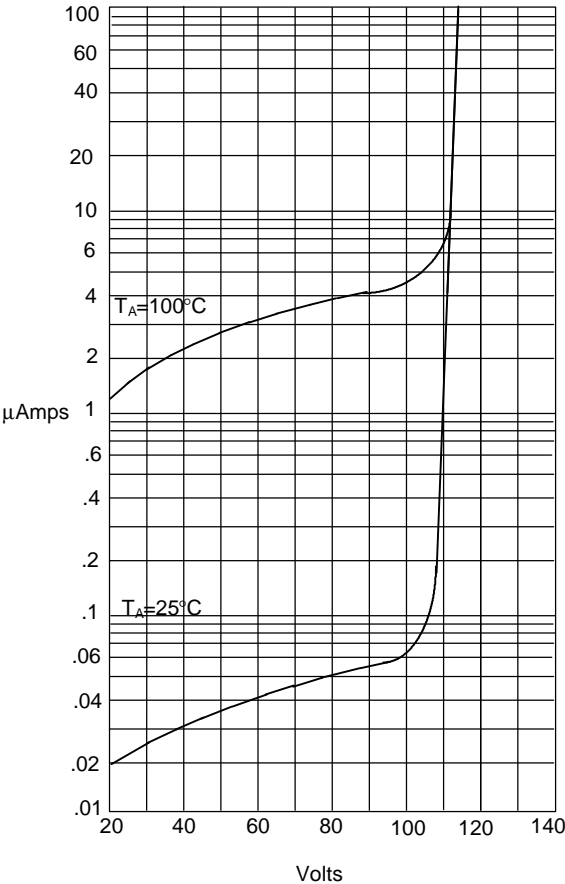
Figure 3
Junction Capacitance



Junction Capacitance - pF *versus*
Reverse Voltage - Volts

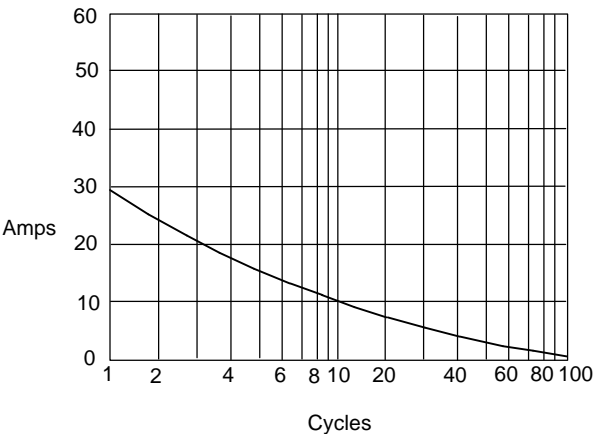
DLFR106 thru DLFR107

Figure 4
Typical Reverse Characteristics



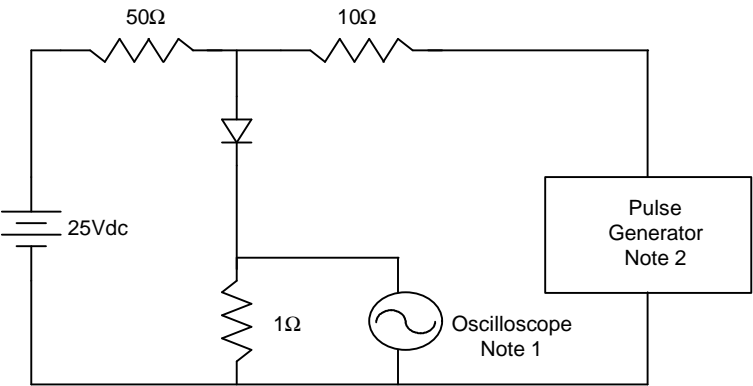
Instantaneous Reverse Leakage Current - MicroAmperes versus
Percent Of Rated Peak Reverse Voltage - Volts

Figure 5
Peak Forward Surge Current



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

Figure 6
Reverse Recovery Time Characteristic And Test Circuit Diagram



- Notes:
1. Rise Time = 7ns max.
Input impedance = 1 megohm, 22pF
 2. Rise Time = 10ns max.
Source impedance = 50 ohms
 3. Resistors are non-inductive

