

**NOT RECOMMENDED FOR NEW DESIGNS  
USE FS1A-L~FS1J-L SERIES  
OR FS1AE~FS1JE SERIES**



Micro Commercial Components



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**DL4933  
THRU  
DL4937**

## Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Case Material:Molded Plastic.
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Low Leakage Current
- Metalurgically Bonded Construction
- Surface Mount Applications
- Glass Passivated Junction

## Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 30 °C/W Junction To Lead

MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
DL4933	---	50V	35V	50V
DL4934	---	100V	70V	100V
DL4935	---	200V	140V	200V
DL4936	---	400V	280V	400V
DL4937	---	600V	420V	600V

## Electrical Characteristics @ 25°C Unless Otherwise Specified

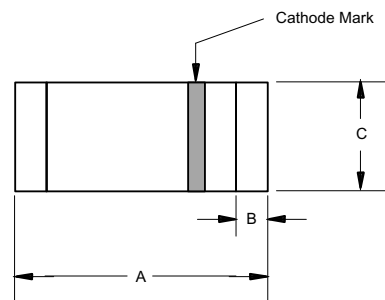
Average Forward Current	$I_{F(AV)}$	1.0A	$T_A = 55^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	30A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_F$	1.3V	$I_{FM} = 1.0\text{A}; T_J = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	5.0μA 100μA	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$
Maximum Reverse Recovery Time	$T_{rr}$	200ns	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$
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%

Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7.

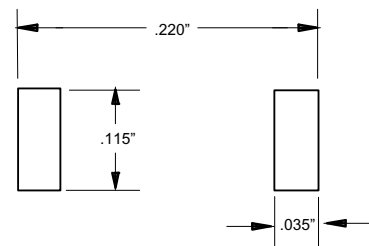
**1 Amp Glass  
Passivated, Fast  
Recovery Rectifier  
50 to 600 Volts**

## MELF



DIMENSIONS					
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	Ø

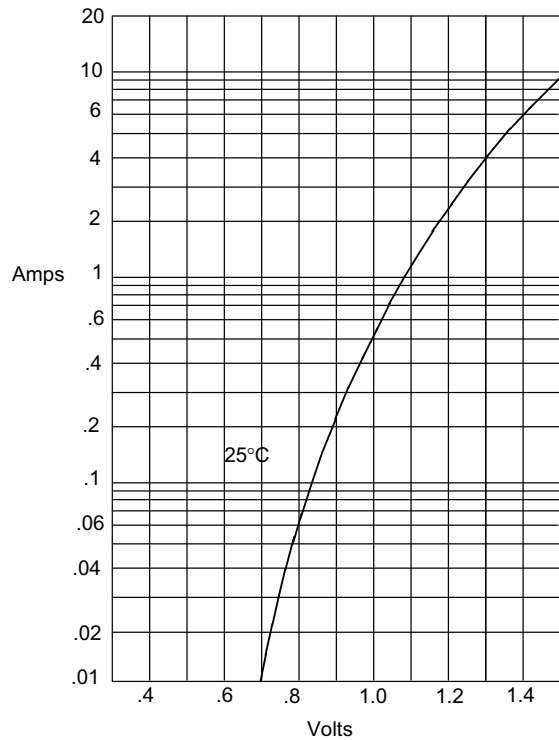
## SUGGESTED SOLDER PAD LAYOUT



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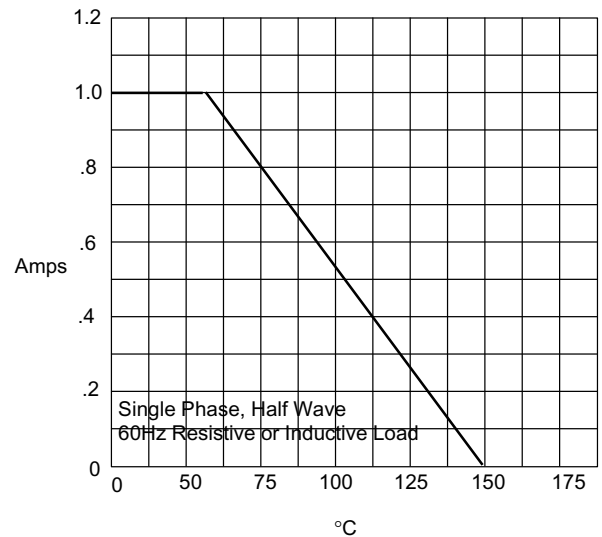
# DL4933 thru DL4937

Figure 1  
Typical Forward Characteristics



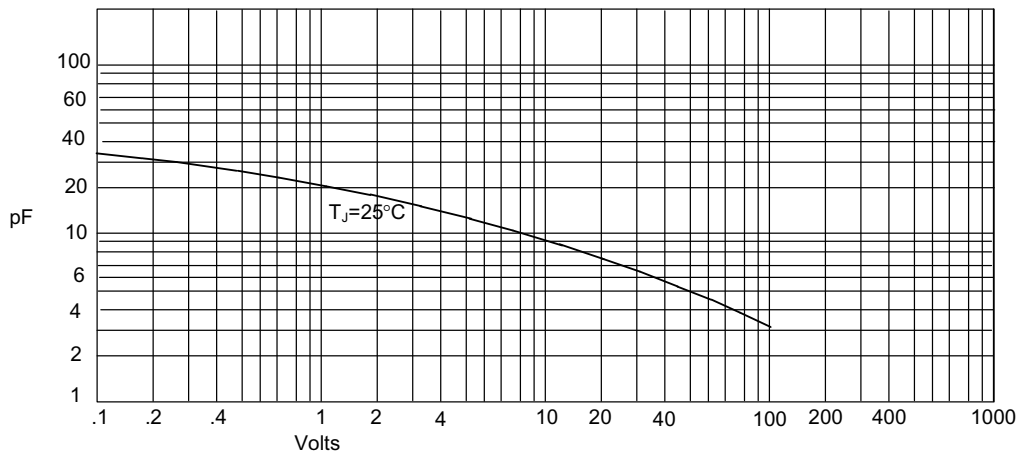
Instantaneous Forward Current - Amperes *versus*  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



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

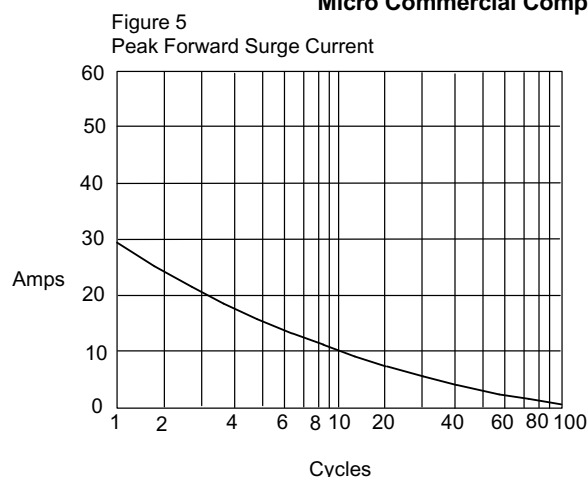
Figure 3  
Junction Capacitance



Junction Capacitance - pF *versus*  
Reverse Voltage - Volts

*M.C.C.*

## Micro Commercial Components



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

115Va 10K 60Hz 2W

C.P. CLARE HPG 1002

30 Vdc CONSTANT VOLTAGE SUPPLY

1 AMP SLO-BLO FUSE

1.0μF 300V C1

3.8μH/1.4Ω

30V 50W NON-INDUCTIVE

UNIT UNDER TEST

1Ω 10W NON-INDUCTIVE

1.0μF 300V C1

1.0 Adc FROM CONSTANT VOLTAGE SUPPLY RIPPLE = 3mVrms MAX

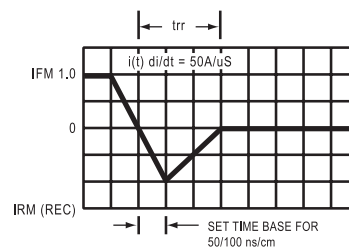
MINIMIZE ALL LEAD LENGTHS

Zout 1 1/2Ω MAX DC to 2kHz

A-TEKTRONIX 545A, K PLUG IN PRE AMP P6000 PROBE OR EQUIVALENT  
R1-ADJUSTED FOR 1.4Ω BETWEEN POINT 2 OF RELAY AND RECTIFIER  
INDUCTIVE = 3.8μH

R2=10Ω 10% CARBON CORE IN PARALLEL

TA = 25 ± 10°C FOR RECTIFIER  
= 0.



Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 5Kpcs/Reel

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