

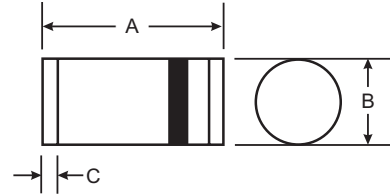


# DL4933 - DL4937

## 1.0A SURFACE MOUNT FAST RECOVERY RECTIFIER

### Features

- Glass Passivated Junction
- Low Leakage
- Low Forward Voltage Drop
- High Current Capability
- For Surface Mounted Application
- Plastic Material UL Flammability Classification Rating 94V-0



### Mechanical Data

- Case: MELF, Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Cathode band
- Approx Weight: 0.25 grams
- Mounting Position: Any
- Marking: Cathode Band Only

MELF		
Dim	Min	Max
A	4.80	5.20
B	2.40	2.60
C	0.55 Nominal	
All Dimensions in mm		

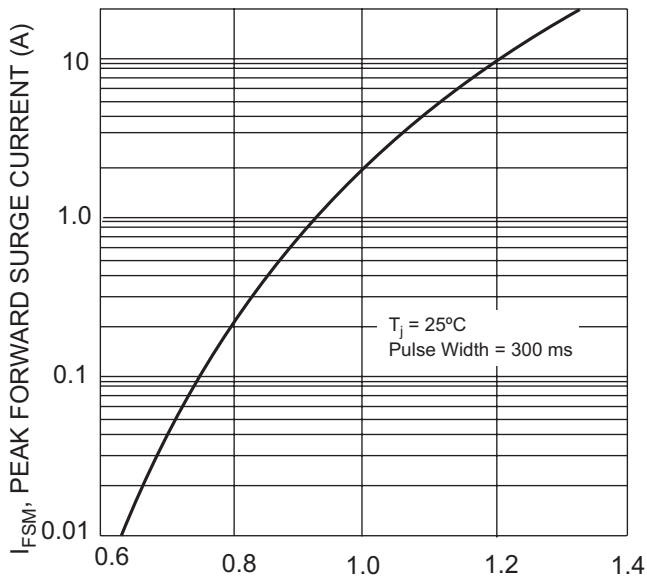
### Maximum Ratings and Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.

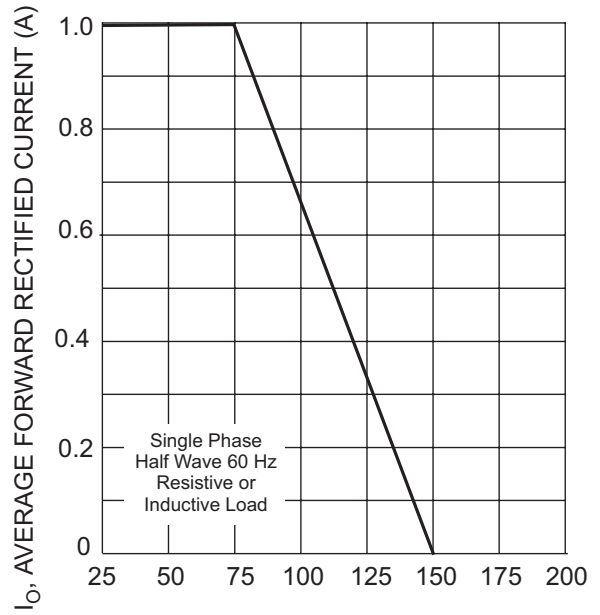
For capacitive load, derate current by 20%.

Characteristic	Symbol	DL4933	DL4934	DL4935	DL4936	DL4937	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	50	100	200	400	600	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	V
Maximum Average Forward Rectified Current @ $T_T=75^\circ\text{C}$	$I_O$	1.0					A
Peak Forward Surge Current 8.3 ms half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30					A
Maximum Instantaneous Forward Voltage @ $I_F = 1.0\text{A}$	$V_F$	1.2					V
Maximum DC Reverse Current at Rated Blocking Voltage	$I_R$	5.0					$\mu\text{A}$
Maximum Full Load Reverse Current Full Cycle Average @ $T_T = 55^\circ\text{C}$	$I_R$	100					$\mu\text{A}$
Maximum Reverse Recovery Time (Note 1)	$t_{rr}$	200					ns
Typical Junction Capacitance (Note 2)	$C_j$	15					pF
Operating and Storage Temperature Range	$T_j, T_{STG}$	-65 to +150					$^\circ\text{C}$

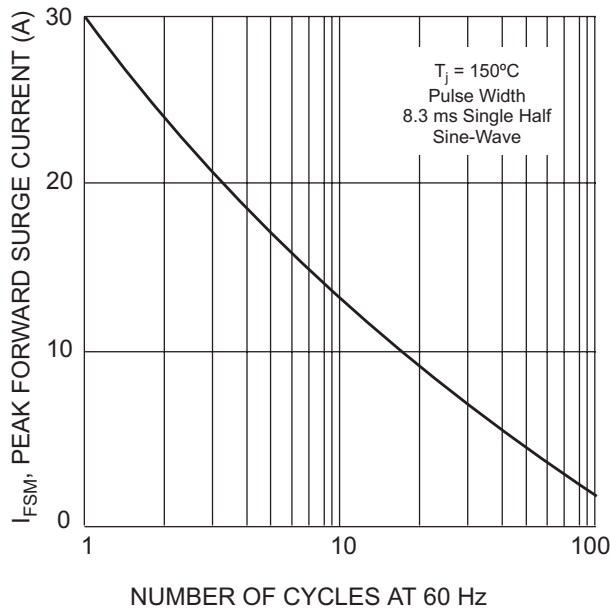
- Notes: 1. Reverse Recovery Test Conditions:  $I_F = 1.0\text{A}$ ,  $V_R = 30\text{V}$ ,  $di/dt = 50\text{ A}/\mu\text{s}$ .  
2. Measured at 1.0MHz and Applied Reverse Voltage of 4.0V.



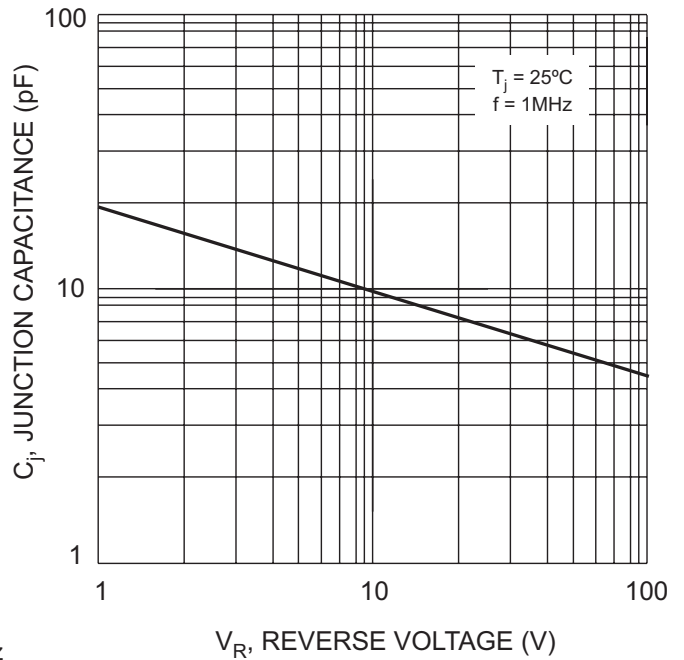
$V_F$ , INSTANTANEOUS FORWARD VOLTAGE (V)  
Fig. 1 Peak Forward Surge Current vs Forward Voltage



$T_T$ , TERMINAL TEMPERATURE ( $^\circ\text{C}$ )  
Fig. 2 Forward Derating Curve



NUMBER OF CYCLES AT 60 Hz  
Fig. 3 Peak Fwd Surge Current vs Number of Cycles at 60 Hz



$V_R$ , REVERSE VOLTAGE (V)  
Fig. 4 Junction Capacitance vs Reverse Voltage