

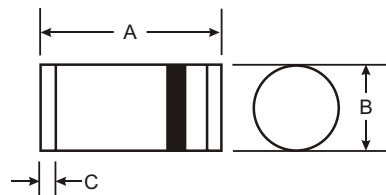


DL4933 - DL4937

1.0A SURFACE MOUNT FAST RECOVERY RECTIFIER

Features

- Glass Passivated Junction
- Low Leakage Current
- Low Forward Voltage Drop
- High Current Capability
- Available in Lead Free Finish/RoHS Compliant Version (Note 3)



Mechanical Data

- Case: MELF
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals: Solderable per MIL-STD-202, Method 208
- Also Available in Lead Free Plating (Matte Tin Finish). Please see Ordering Information, Note 4, on Page 2
- Polarity: Cathode Band
- Approx Weight: 0.25 grams
- Marking: Cathode Band Only

MELF		
Dim	Min	Max
A	4.80	5.20
B	2.60	2.64
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	V_{RRM}	50	100	200	400	600	V
Working Peak Reverse Voltage	V_{RWM}						
DC Blocking Voltage	V_R						
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	V
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	I_{FSM}	30					A
Maximum Instantaneous Forward Voltage @ $I_F = 1.0\text{A}$	V_{FM}	1.2					V
Maximum DC Reverse Current at Rated Blocking Voltage	I_{RM}	5.0					μA
Maximum Full Load Reverse Current Full Cycle Average @ $T_T = 55^\circ\text{C}$	I_R	100					μA
Maximum Reverse Recovery Time (Note 1)	t_{rr}	200					ns
Typical Total Capacitance (Note 2)	C_T	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.
 3. RoHS revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see EU Directive Annex Notes 5 and 7.

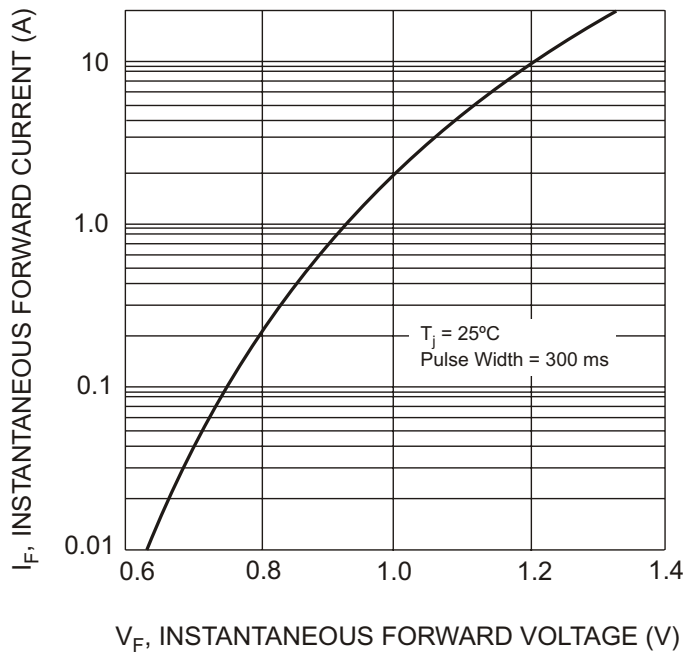


Fig. 1 Typical Forward Characteristics

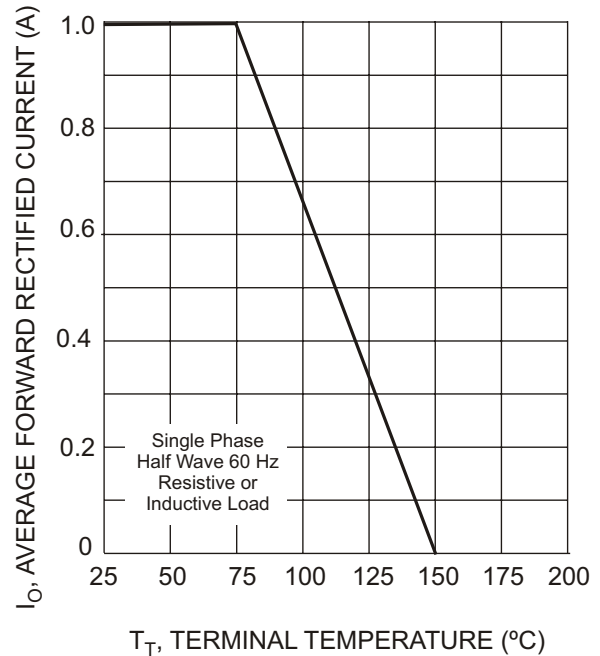


Fig. 2 Forward Derating Curve

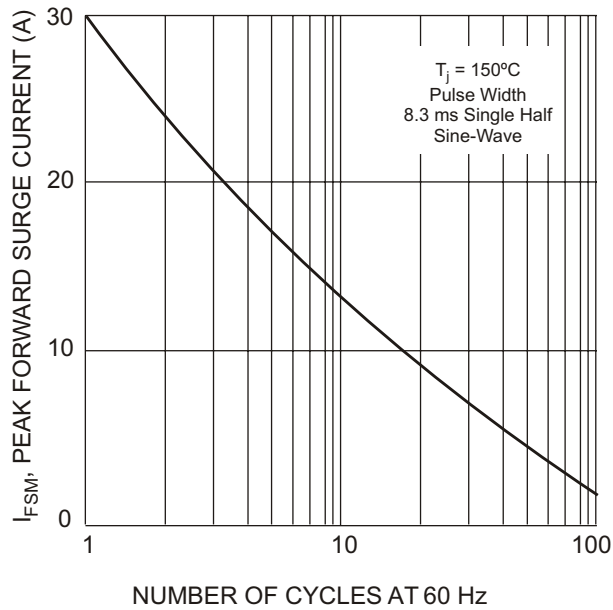


Fig. 3 Peak Fwd Surge Current vs Number of Cycles at 60 Hz

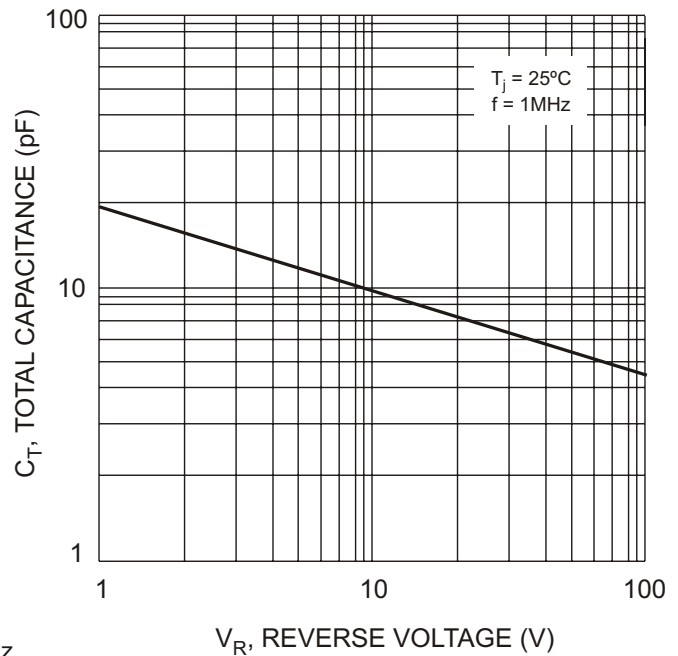


Fig. 4 Typical Total Capacitance vs Reverse Voltage

Ordering Information (Note 4)

Device	Packaging	Shipping
DL4933-13	MELF	5,000/Tape & Reel
DL4934-13	MELF	5,000/Tape & Reel
DL4935-13	MELF	5,000/Tape & Reel
DL4936-13	MELF	5,000/Tape & Reel
DL4937-13	MELF	5,000/Tape & Reel

Note: 4. For Lead Free Finish/RoHS Compliant version part number, please add "-F" suffix to the part number above.
Example: DL4935-13-F.