

## Features

- Glass Passivated Junction
- High Current Capability
- Low Forward Voltage Drop
- Low Leakage Current
- **Lead Free Finish/RoHS Compliant Version (Note 2)**



## Mechanical Data

- Case: MELF
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals: Solderable per MIL-STD-202, Method 208 (e3)
- Lead Free Plating (Matte Tin Finish).
- Polarity: Cathode Band
- Marking: Cathode Band Only
- Approximate Weight: 0.25 grams

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<sub>A</sub> = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.

Characteristic	Symbol	DL 4001	DL 4002	DL 4003	DL 4004	DL 4005	DL 4006	DL 4007	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	71	141	283	424	566	707	V
Average Forward Rectified Current @ T <sub>T</sub> = 75°C	I <sub>O</sub>	1.0							A
Peak Forward Surge Current 8.3ms single half sine-wave Superimposed on Rated Load	I <sub>FSM</sub>	30							A
Maximum Forward Voltage @ I <sub>F</sub> = 1.0A	V <sub>FM</sub>	1.1							V
Maximum DC Reverse Current @ T <sub>A</sub> = 25°C @ Rated DC Blocking Voltage @ T <sub>A</sub> = 100°C	I <sub>RM</sub>	5.0 50							μA
Typical Thermal Resistance, Junction to Ambient Air	R <sub>θJA</sub>	50							°C/W
Typical Total Capacitance (Note 1)	C <sub>T</sub>	15							pF
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-55 to +150							°C

Notes: 1. Measured at 1.0MHz and applied reverse voltage of 4.0 volts.  
 2. RoHS revision 13.2.2003. Glass and high temperature solder exemptions applied, see *EU Directive Annex Notes 5 and 7*.

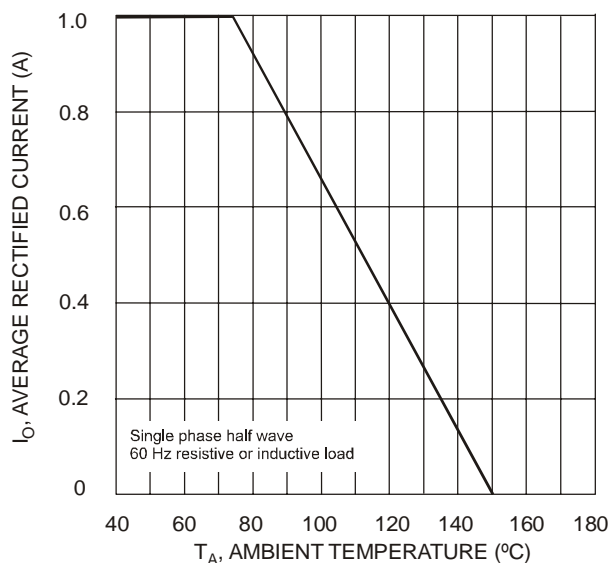


Fig. 1 Forward Current Derating Curve

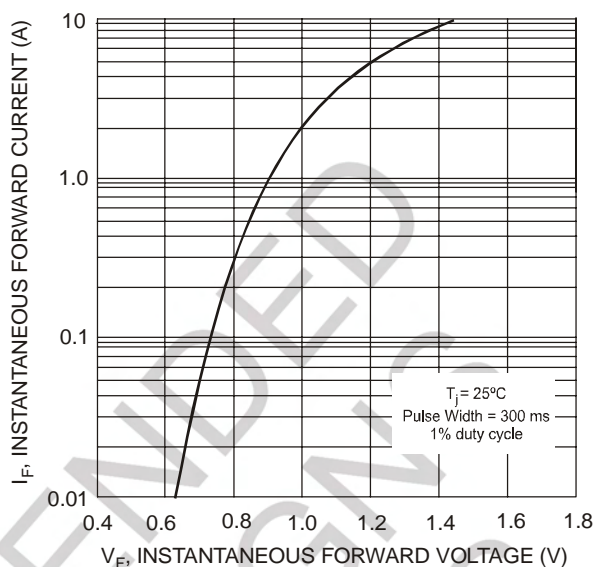


Fig. 2 Typical Forward Characteristics

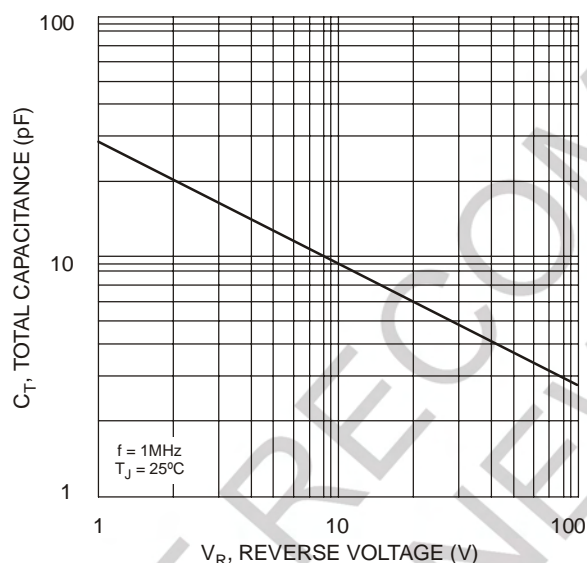


Fig. 3 Typical Total Capacitance vs. Reverse Voltage

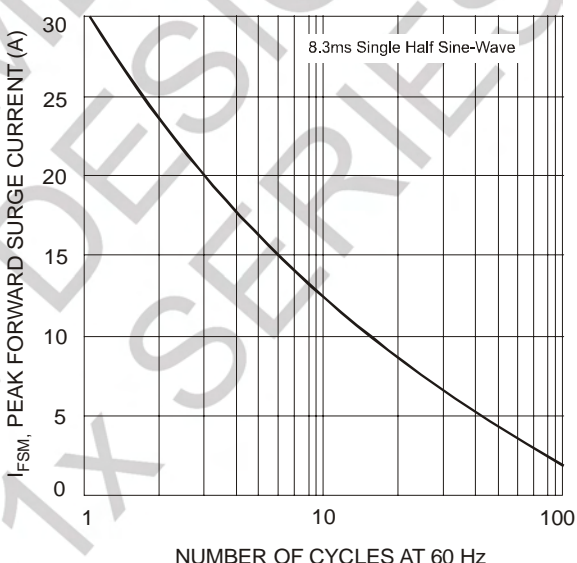


Fig. 4 Max Non-Repetitive Peak Forward Surge Current

## Ordering Information

Device	Packaging	Shipping
DL4001-13-F	MELF	5,000/Tape & Reel
DL4002-13-F	MELF	5,000/Tape & Reel
DL4003-13-F	MELF	5,000/Tape & Reel
DL4004-13-F	MELF	5,000/Tape & Reel
DL4005-13-F	MELF	5,000/Tape & Reel
DL4006-13-F	MELF	5,000/Tape & Reel
DL4007-13-F	MELF	5,000/Tape & Reel

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