

# **DL4001 - DL4007**

### 1.0A SURFACE MOUNT GLASS PASSIVATED RECTIFIER

#### **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 (3)
- Lead Free Plating (Matte Tin Finish).
- Polarity: Cathode Band
- Marking: Cathode Band Only
- Approximate Weight: 0.25 grams

MELF					
Dim	Min	Max			
Α	4.80	5.20			
В	2.40	2.60			
С	0.55 Nominal				
All Dimensions in mm					

# Maximum Ratings and Electrical Characteristics @TA = 25°C unless otherwise specified

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

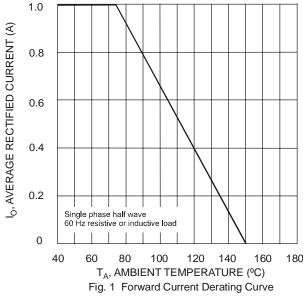
Characteristic	Symbol	DL 4001	DL 4002	DL 4003	DL 4004	DL 4005	DL 4006	DL 4007	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	71	141	283	424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

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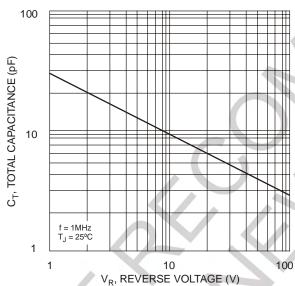
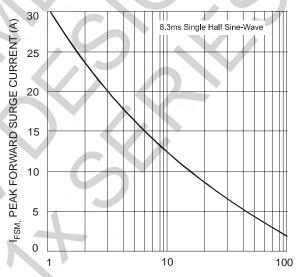


Fig. 3 Typical Total Capacitance vs. Reverse Voltage

I<sub>F</sub>, INSTANTANEOUS FORWARD CURRENT (A) 1.0 0.1  $T_i = 25^{\circ}C$ u**l**se Width = 300 ms 1% duty cycle 0.01 1.0 1.8 1.2 V<sub>F</sub>, INSTANTANEOUS FORWARD VOLTAGE (V) Fig. 2 Typical Forward Characteristics



NUMBER OF CYCLES AT 60 Hz 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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