

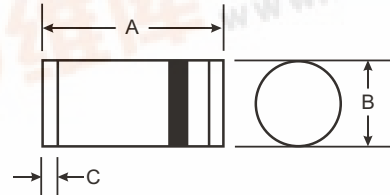


# DL4001 - DL4007

## 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 **(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	2.60	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	DL 4001	DL 4002	DL 4003	DL 4004	DL 4005	DL 4006	DL 4007	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	$V_{RWM}$								
DC Blocking Voltage	$V_R$								
RMS Reverse Voltage	$V_{R(RMS)}$	35	71	141	283	424	566	707	V
Average Forward Rectified Current @ $T_T = 75^\circ\text{C}$	$I_O$	1.0							A
Peak Forward Surge Current 8.3ms single half sine-wave Superimposed on Rated Load	$I_{FSM}$	30							A
Maximum Forward Voltage @ $I_F = 1.0\text{A}$	$V_{FM}$	1.1							V
Maximum DC Reverse Current @ $T_A = 25^\circ\text{C}$ @ Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	$I_{RM}$	5.0 50							A
Typical Thermal Resistance, Junction to Ambient Air	$R_{JA}$	50							C/W
Typical Total Capacitance (Note 1)	$C_T$	15							pF
Operating and Storage Temperature Range	$T_J, T_{STG}$	-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.

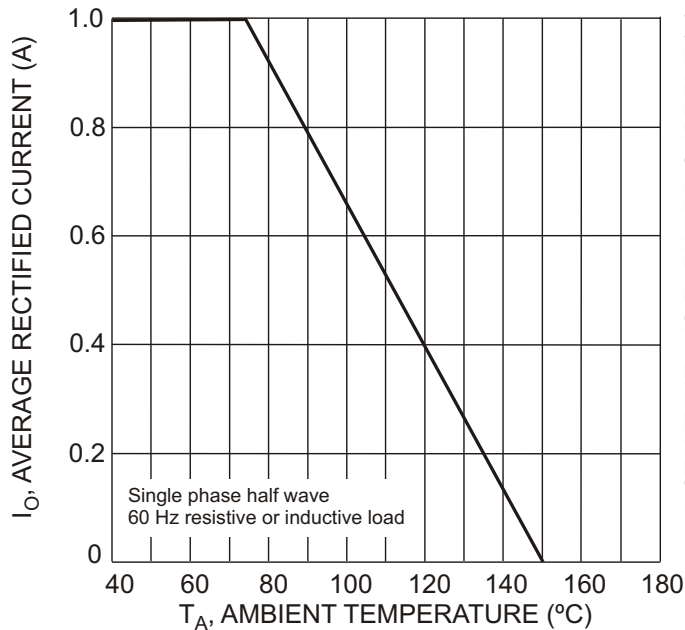


Fig. 1 Forward Current Derating Curve

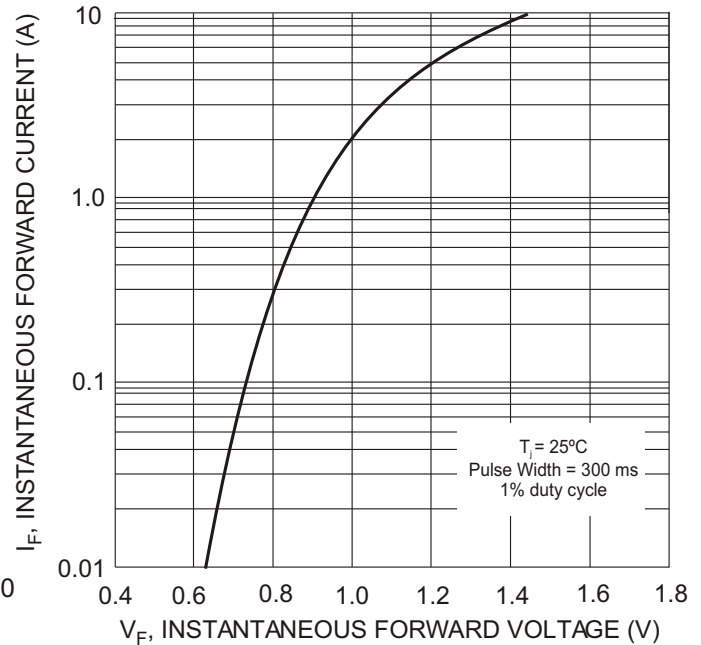


Fig. 2 Typical Forward Characteristics

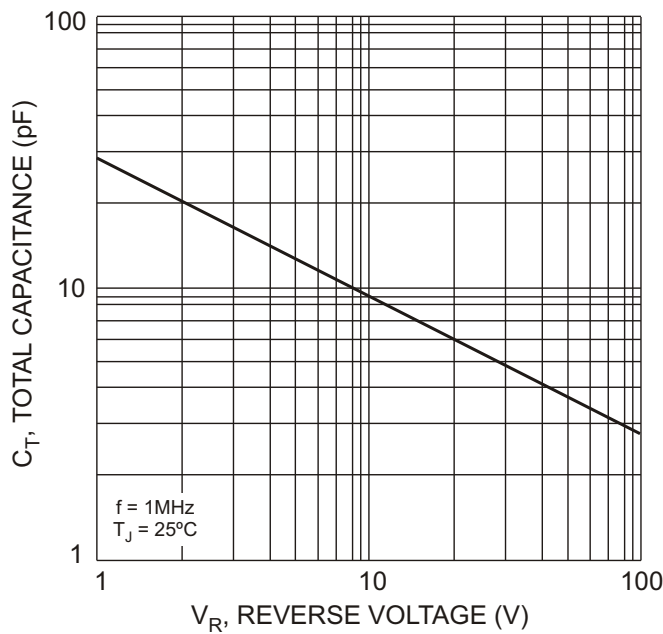


Fig. 3 Typical Total Capacitance vs. Reverse Voltage

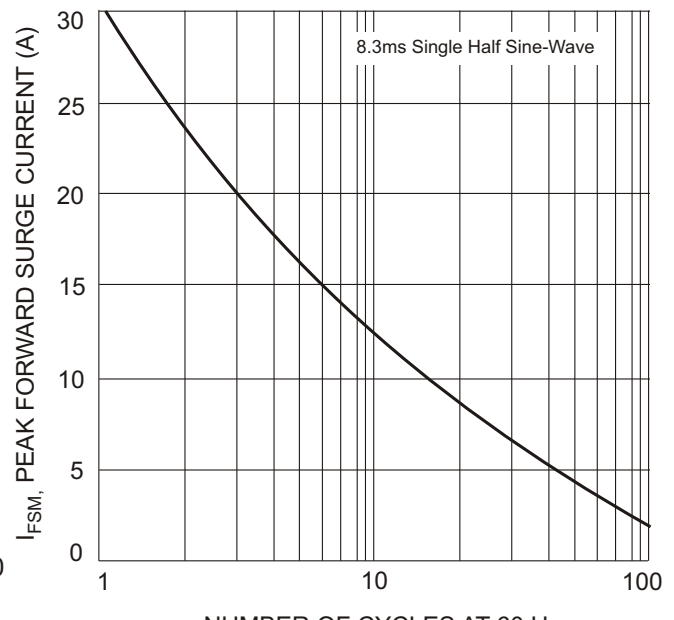


Fig. 4 Max Non-Repetitive Peak Forward Surge Current

## 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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