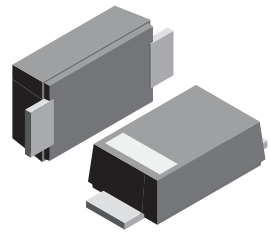
UF1001FL - UF1008FL

SMALL SURFACE MOUNT ULTRA FAST DIODES

VOLTAGE RANGE: 100 - 800V
CURRENT: 1.0A



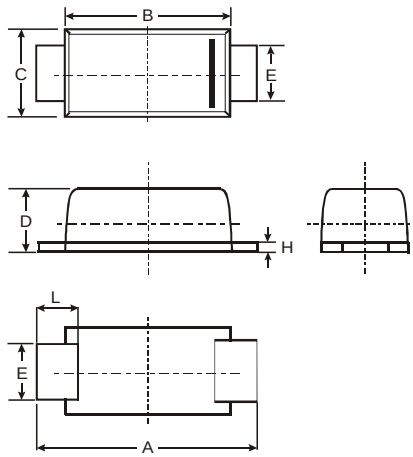
Features

- Glass passivated device
- Ideal for surface mouted applications
- Low reverse leakage
- Metallurgically bonded construction
- High temperature soldering guaranteed:

Mechanical Data

- Case: SOD-123FL molded plastic body over passivated junction
- Terminals : Plated axial leads, solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight:0.0007 ounce, 0.02 grams

RoHS COMPLIANT



SOD-123FL			
Dim	Min	Max	Typ
A	3.58	3.72	3.65
B	2.72	2.78	2.75
C	1.77	1.83	1.80
D	1.02	1.08	1.05
E	0.097	1.03	1.00
H	0.13	0.17	0.15
L	0.53	0.57	0.55
All Dimensions in mm			

Maximum Ratings and Electrical Characteristics

T_A = 25°C unless otherwise specified

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

Characteristic	Symbol	UF1001FL	UF1002FL	UF1004FL	UF1006FL	UF1008FL	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	100	200	400	600	800	V
Maximum RMS voltage	V_{RMS}	70	140	280	420	560	V
Maximum DC blocking voltage	V_{DC}	100	200	400	600	800	V
Maximum average forward rectified current at T_A=65°C (NOTE 1)	$I_{(AV)}$	1.0					A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) T_L=25°C	I_{FSM}	25.0					A
Maximum instantaneous forward voltage at 1.0A	V_F	1.0		1.4	1.7		V
Maximum DC reverse current T_A=25°C at rated DC blocking voltage T_A=125°C	I_R	5.0 100.0					µA
Maximum reverse recovery time (NOTE 2)	trr	50			75		ns
Typical thermal resistance (NOTE 4)	$R_{\theta JA}$	180					K/W
Operating junction and storage temperature range	T_J,T_{STG}	-50 to +150					°C

Note: 1.Averaged over any 20ms period.
2.Measured with IF=0.5A, IR=1A, Irr=0.25A.
3.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
4.Thermal resistance junction to ambient, 6.0 mm2 coppeer pads to each terminal.

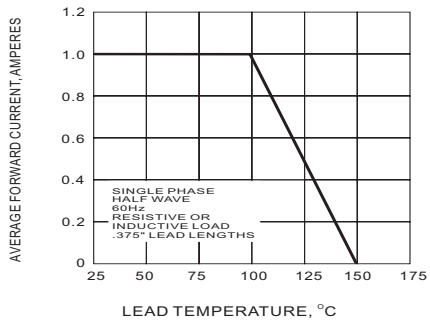


Fig.1FORWARDCURRENTDERATINGCURVE

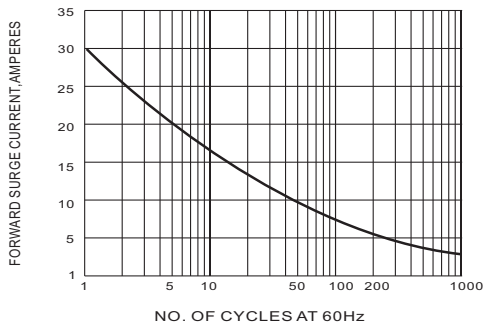


Fig.2PEAKFORWARDSURGECURRENT

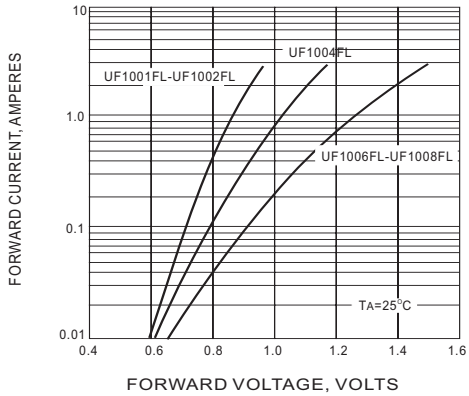


Fig.3FORWARDCHARACTERISTICS

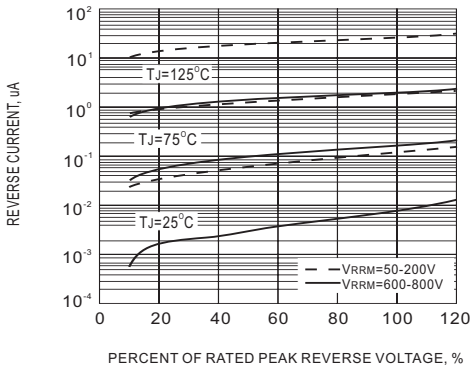


Fig.4TYPICALREVERSECHARACTERISTICS

US1001FL US1002FL US1004FL US1006FL US1008FL

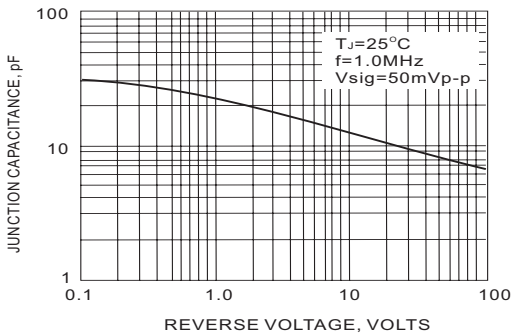


Fig.5TYPICALJUNCTIONCAPACITANCE