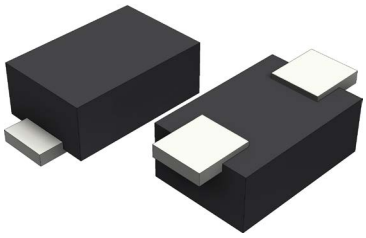
Rectifier Diodes

multicomp PRO

RoHS Compliant



Features

- Low cost
- Diffused junction
- Ultra fast switching for high efficiency
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0

Mechanical Data

- Case: JEDEC SOD-123FL molded plastic body over glass passivated chip
- Terminals: Solder plated, solderable per J-STD-002B and JESD22-B102D
- Polarity: Laser band denotes cathode end

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristics	Symbol	UF1ML	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	1000	V
Maximum RMS voltage	V_{RMS}	700	
Maximum DC blocking voltage	V_{DC}	1000	
Maximum Average Forward Rectified Current @T_A=55°C	$I_{(AV)}$	1	A
Peak forward surge current 8.3ms single half -sine-wave superimposed on Rated Load(JEDEC Method)	I_{FSM}	25	
Peak Forward Voltage at 1.0A DC	V_F	1.7	V
Maximum DC Reverse Current @T_J=25°C at rated DC Blocking voltage @T_J=100°C	I_R	5 100	μA
Maximum Reverse Recovery Time(Note 1)	T_{RR}	75	nS
Typical junction Capacitance (Note2)	C_J	9	pF
Typical thermal Resistance (Note3)	$R_{\theta JA}$	180	°C/W
Operating junction Temperature Range	T_J	- 55 to + 125	°C
Storage Temperature Range	T_{STG}	- 55 to + 150	

NOTE: 1. Measured with I_F=0.5A,I_R=1A, I_{RR}=0.25A.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC
3.Thermal resistance junction to ambient.

Rating and Characteristic Curves

Fig. 1 - Forward Current Derating Curve

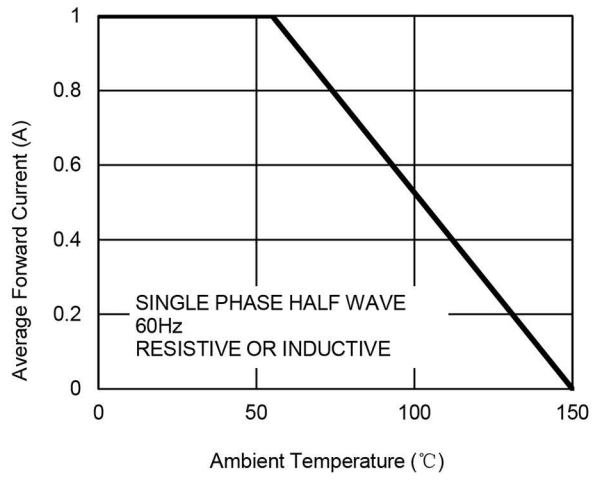


Fig. 2 - Maximum Non-Repetitive Surge Current

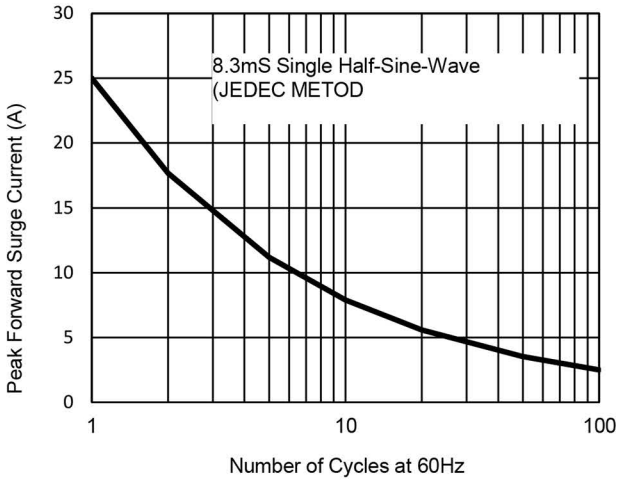


Fig. 3 - Typical Junction Capacitance

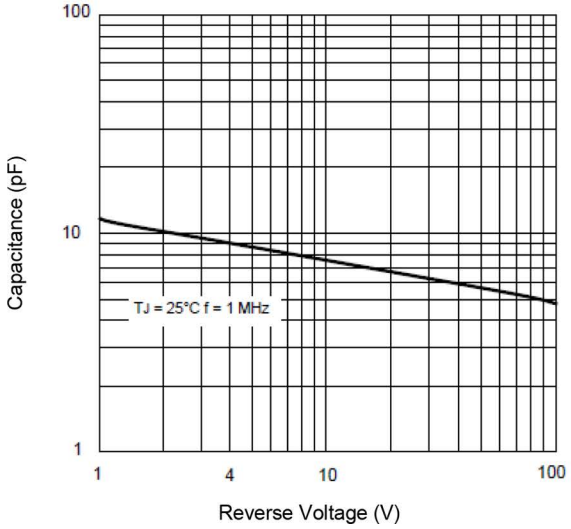
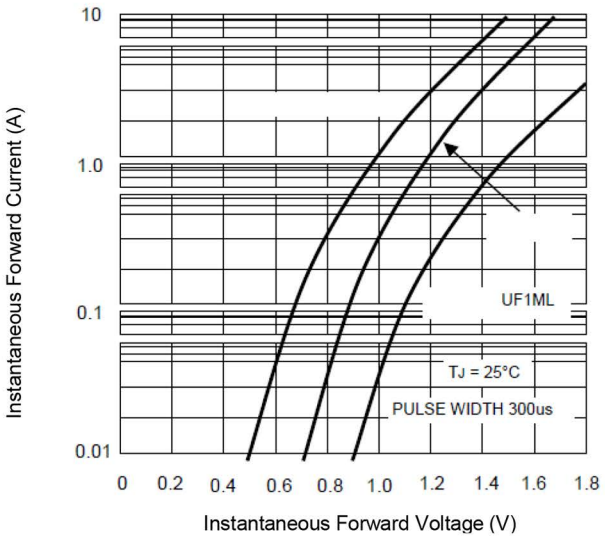
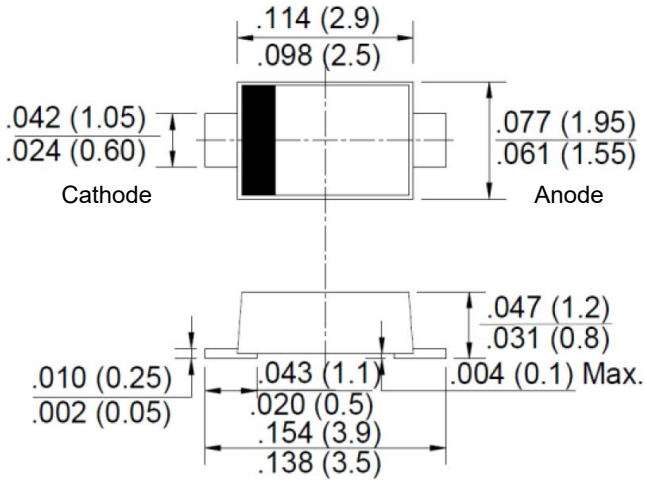


Fig. 4 - Typical Forward Characteristics



Packaging Dimensions



SOD-123FL

Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
Rectifier Diode, High Efficiency, 1A, 1000V, 75ns, SOD-123FL	UF1ML