

Features

- Glass Passivated Die Construction
- Low Forward Voltage Drop
- Low Leakage Current
- High Forward Surge Capability
- Designed for Surface Mount Application
- Plastic Material - UL Flammability 94V -O



Mechanical Data

- **Case:** TLM-S Molded Plastic
- **Terminals:** Solder plated, Solderable per J-STD-002B and JESD22-B102D
- **Polarity:** As Marked on body
- **Marking:** Type Number
- **Lead Free:** For ROHS/Leadfree Version

Major Ratings and Characteristics

$I_{F(AV)}$	0.5, 0.8 A
V_{RRM}	1000 V
I_{FSM}	15 A
I_R	5 μ A
V_F	1.1 V
$T_j \text{ max.}$	150 °C

Maximum Ratings & Thermal Characteristics ($T_A = 25\text{ °C}$ unless otherwise noted)

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Items	Symbol	TL10F	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	1000	V
Maximum RMS voltage	V_{RMS}	700	V
Maximum DC blocking voltage	V_{DC}	1000	V
Maximum average forward rectified current	$I_{F(AV)}$	0.5 ¹⁾	A
		0.8 ²⁾	
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	15	A
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150	°C

1): Mounted on glass epoxy P.C.B with 1.2×0.8mm² pads.

2): Mounted on aluminum substrate P.C.B with 1.2×0.8mm² pads.

Electrical Characteristics ($T_A = 25\text{ °C}$ unless otherwise noted)

Items	Test conditions	Symbol	Min	Type	Max	UNIT
Instantaneous forward voltage	$I_F=0.4A^{3)}$	V_F	-	-	1.1	V
Reverse current	$T_A = 25\text{ °C}$	I_R	-	-	5	μ A
	$T_A = 125\text{ °C}$		-	-	100	

3): Pulse test: 300 μ S pulse width, 1% duty cycle.

Characteristic Curves ($T_A=25\text{ }^\circ\text{C}$ unless otherwise noted)

Fig.1 Forward Current Derating Curve

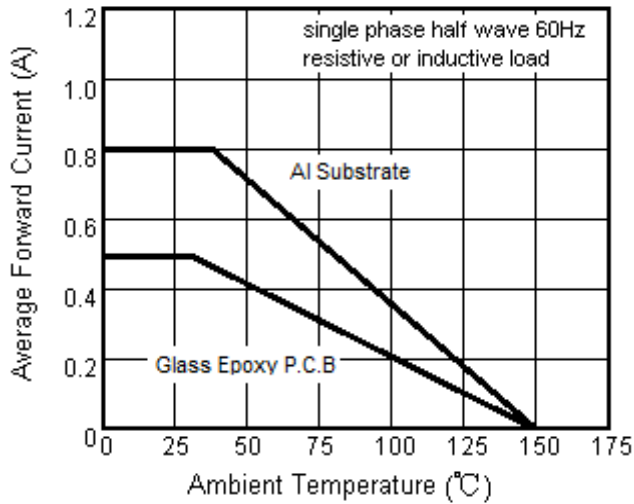


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

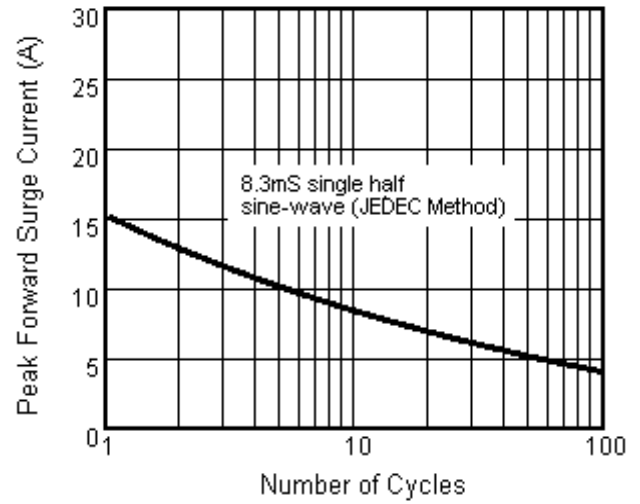


Fig.3 Typical Instantaneous Forward Characteristics

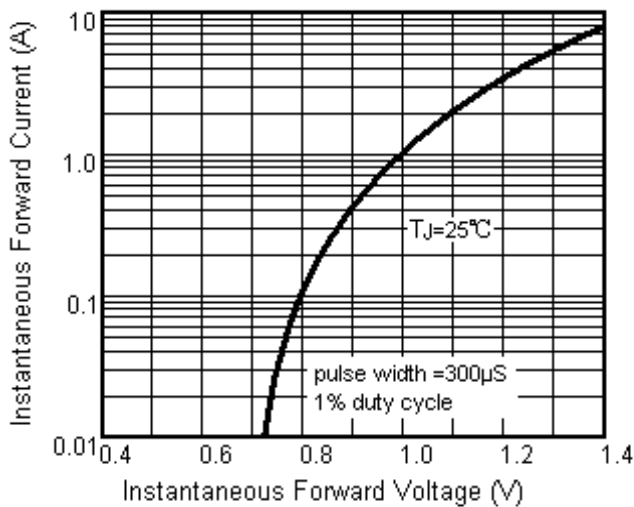
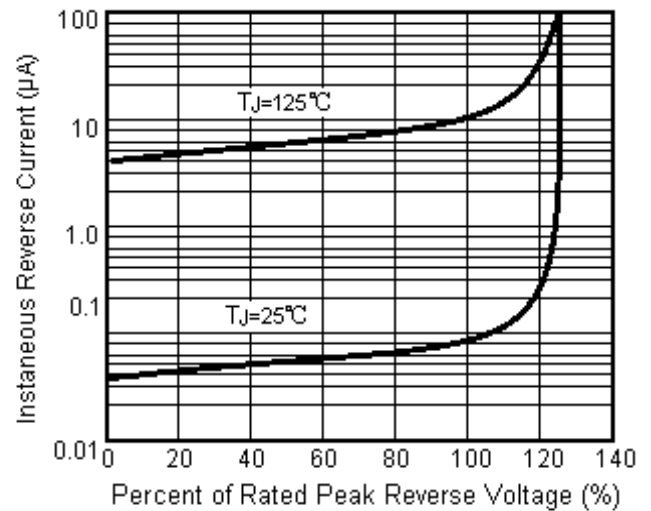
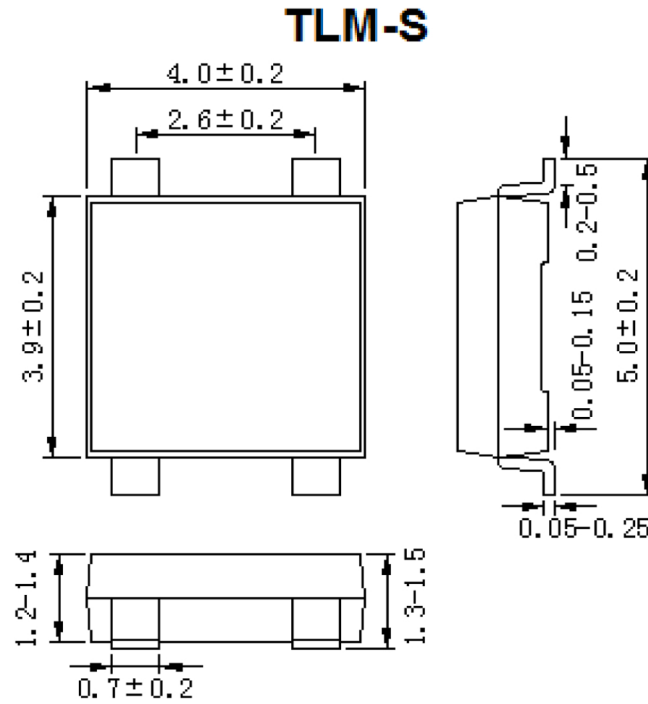


Fig.4 Typical Reverse Characteristics

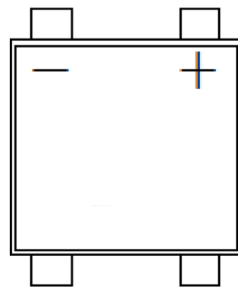


Package Outline



Marking Code

TLM-S



Type	Code
TL10F	

Soldering Pad

