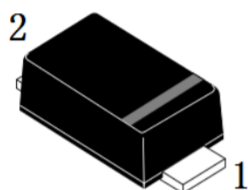


FEATURES

- Low power losses, high efficiency.
- Guardring for over voltage protection.
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- We declare that the material of product compliance with RoHS requirements and Halogen Free.



SOD123FL



Electrical Characteristic

Maximum & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol		Unit
Maximum repetitive peak reverse voltage	V_{RRM}	30	V
Maximum RMS voltage	V_{RMS}	21	V
Maximum DC blocking voltage	V_{DC}	30	V
Maximum average forward rectified current at $T_C = 75^\circ\text{C}$	$I_{F(AV)}$	2.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50	A
Typical thermal resistance (Note 1)	$R_{\theta JA}$	85	$^\circ\text{C/W}$
Operating junction temperature range	T_J	-55 to +150	$^\circ\text{C}$
storage temperature range	T_{STG}	-65 to +175	$^\circ\text{C}$

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol		Unit
Maximum instantaneous forward voltage at 2.0A	V_F	0.50	V
Maximum DC reverse current at rated DC blocking voltage $T_A = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$	I_R	0.5 20	mA
Typical junction capacitance at 4.0V, 1MHz	C_J	160	PF

Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

Fig. 1 - Forward Current Derating Curve

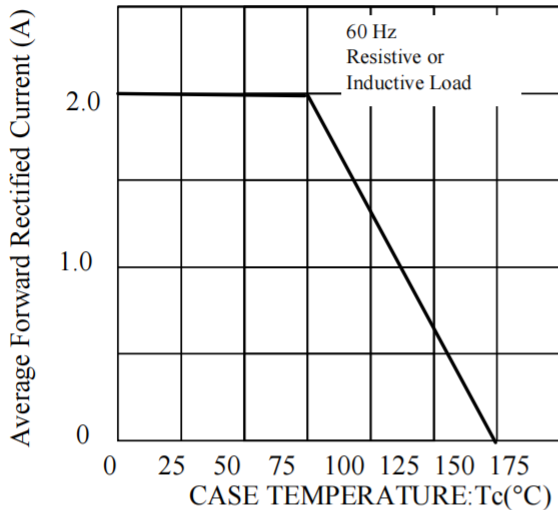


Fig. 3. - Typical Instantaneous Forward Characteristics

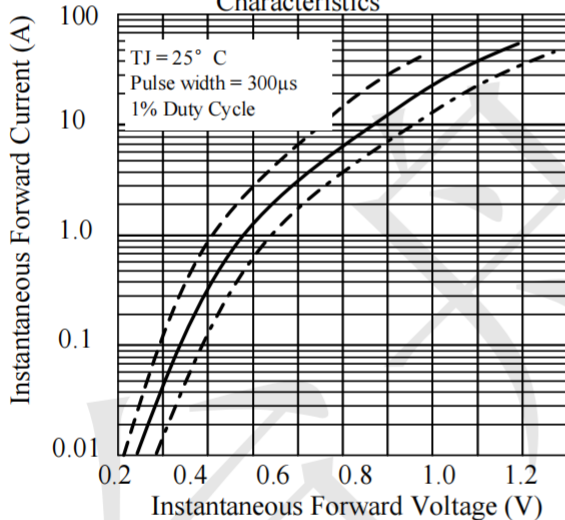


Fig. 5. - typical transient thermal impedance

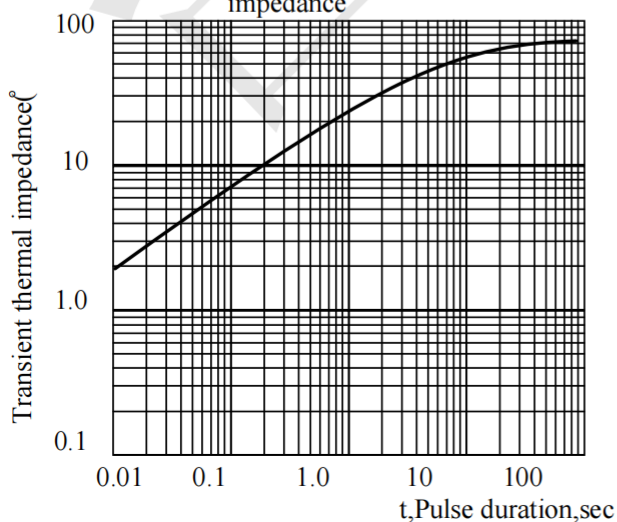


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

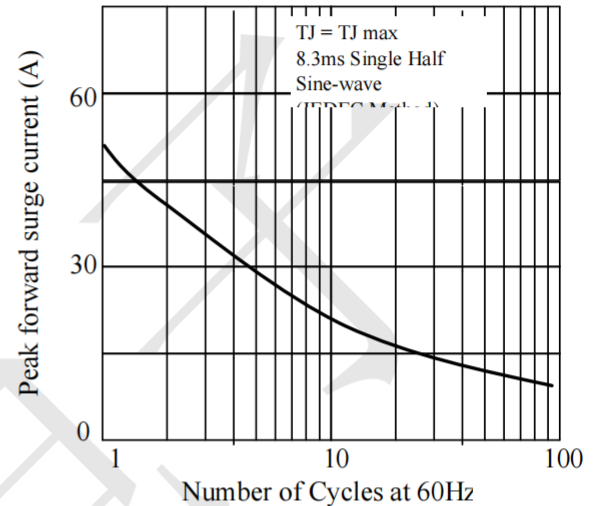


Fig. 4. - Typical Reverse Characteristics

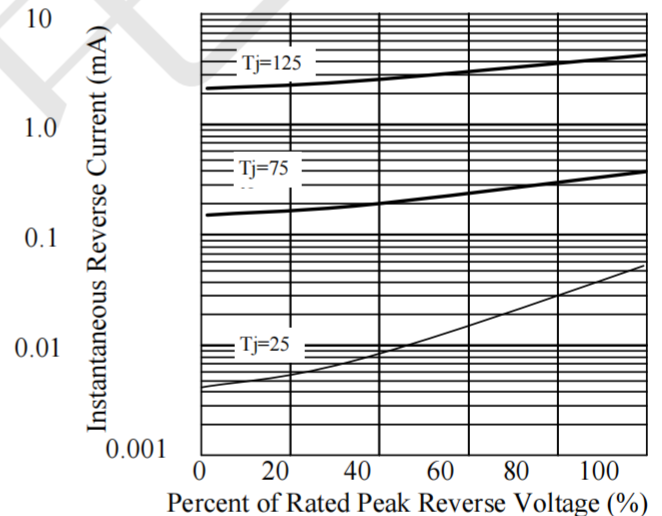
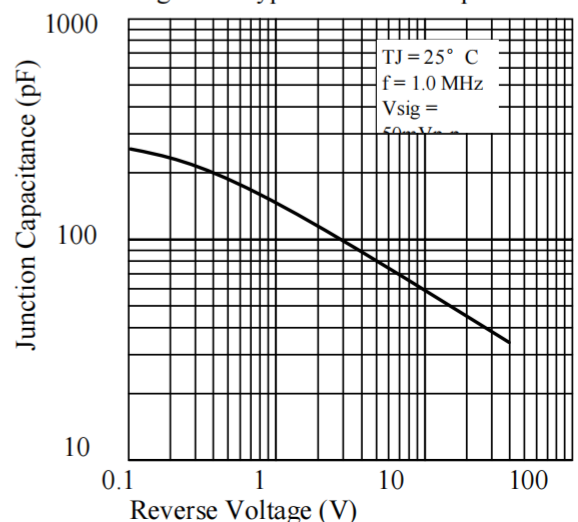
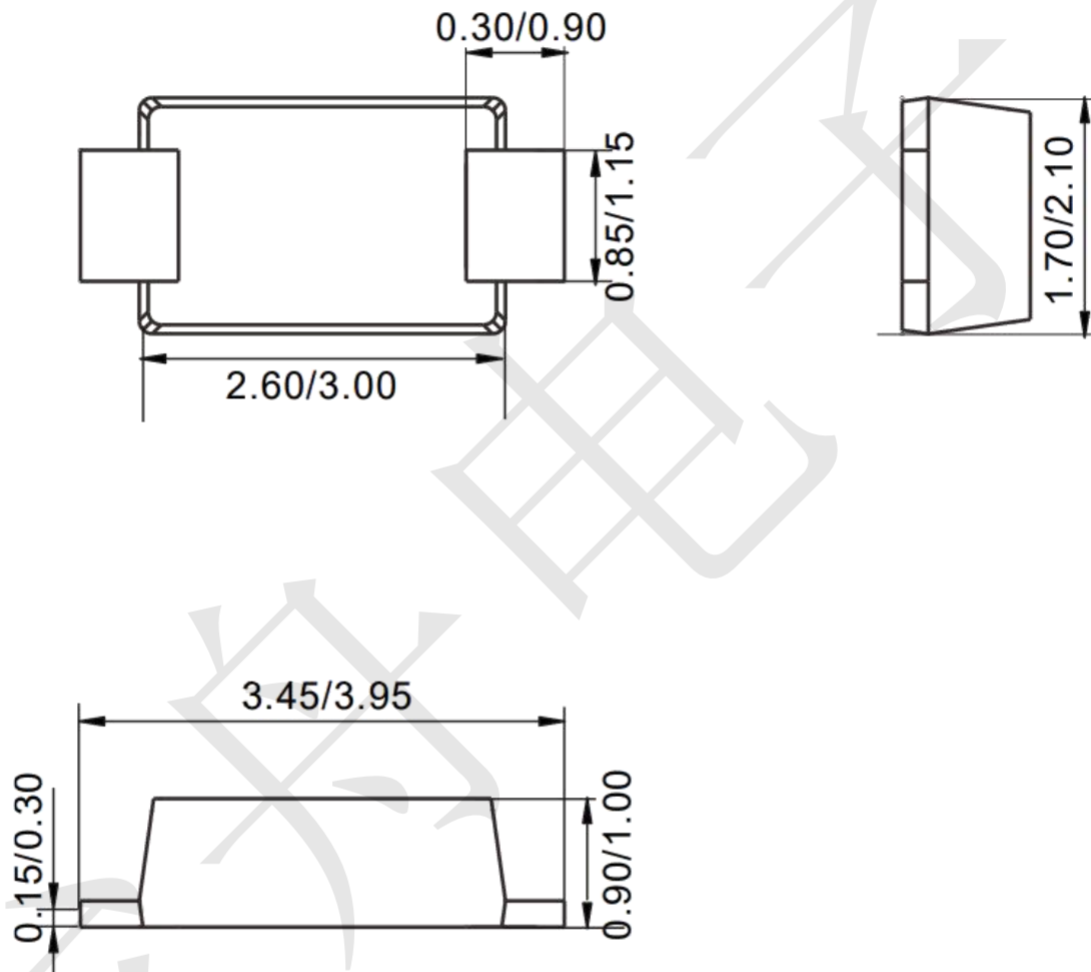


Fig. 6. - Typical Junction Capacitance



Package Outline Dimensions (unit: mm)

SOD-123FL



Mounting Pad Layout (unit: mm)

