

Features

- Low profile package
- Ideal for automated placement
- Low power losses, high efficiency
- Low forward voltage drop
- High surge capability
- High temperature soldering
260°C/10 seconds at terminals
- Component in accordance to
RoHS 2002/95/1 and WEEE 2002/96/EC



RoHS
COMPLIANT

Mechanical Data

- **Case:** SOD-123FL
Molding compound meets
UL 94 V-0 flammability rating
- **Terminals:** Solder plated, solderable per
MIL-STD-750, Method 2026
- **Polarity:** Laser band denotes cathode end

Major Ratings and Characteristics

$I_{F(AV)}$	2.0A
V_{RRM}	20 V to 200 V
I_{FSM}	40A
V_F	0.50V, 0.55V, 0.70V, 0.85V, 0.95V
$T_{jmax.}$	125°C

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

Items	Symbol	DSK 22	DSK 23	DSK 24	DSK 25	DSK 26	DSK 28	DSK 210	DSK 215	DSK 220	Unit	
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	V	
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	105	140	V	
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	150	200	V	
Average forward rectified current at T_L (see Fig.1)	$I_{F(AV)}$	2.0									A	
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	40.0									A	
Thermal resistance from junction to lead ⁽¹⁾	$R_{\theta JL}$	30.0									°C/W	
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +125					-65 to +150					°C

Note: 1. Mounted on epoxy glass PCB with 3mmx3mm Cu pads ($\geq 40 \mu\text{m}$ thick)

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

Items	Test conditions	Symbol	DSK22	DSK23~ DSK24	DSK25~ DSK26	DSK28~ DSK210	DSK215~ DSK220	Unit
Instantaneous forward voltage	$I_F=2.0\text{A}^{(2)}$	V_F	0.50	0.55	0.70	0.85	0.95	V
Reverse current	$V_R=V_{DC}$	I_R	0.5					mA
			5.0					

Note2: Pulse test: 300 μs pulse width, 1% duty

Characteristics Curves

Fig. 1 - Forward Current Derating Curve

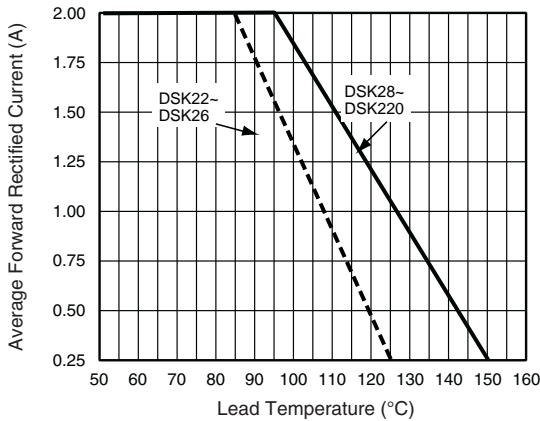


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

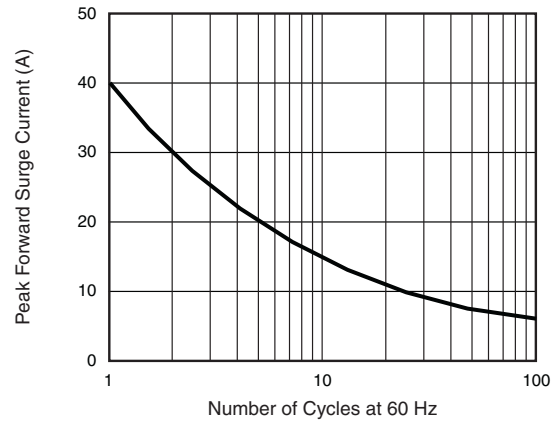


Fig. 3 - Typical Instantaneous Forward Characteristics

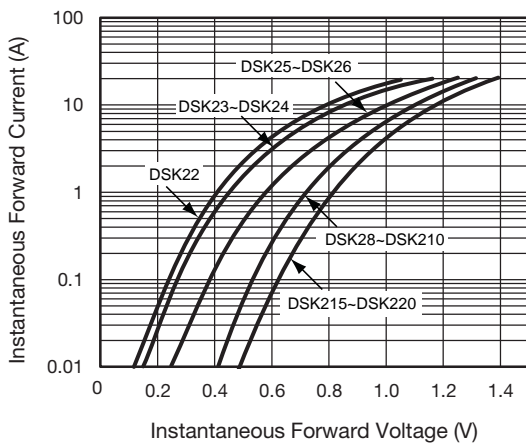
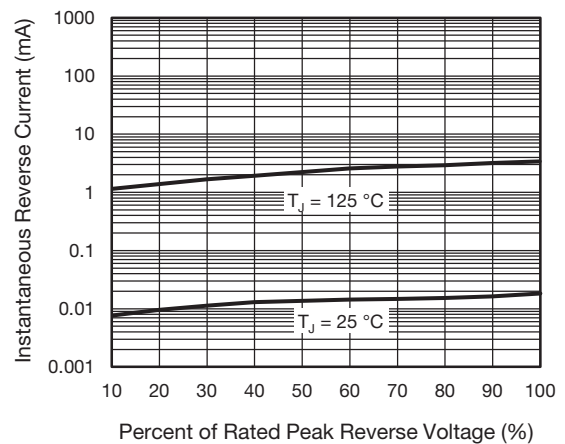
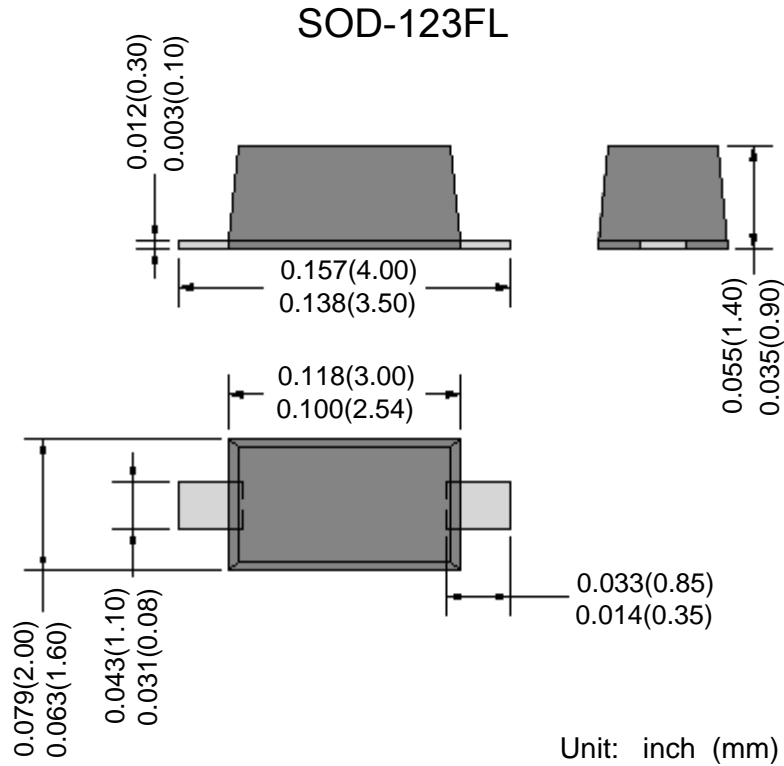


Fig. 4 - Typical Reverse Characteristics



Package Outline



Ordering Information

Outline	Reel (PCS)	Per Carton (PCS)	Reel Diameters (mm)
Taping	3,000		178/7"