

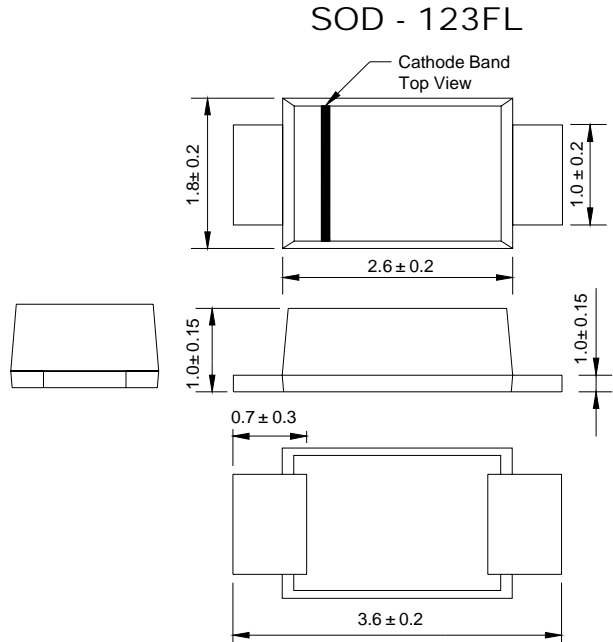
### 1.0A SURFACE MOUNT SCHOTTKY BARRIER DIODE

#### Features

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- Surge Overload Rating to 25A Peak
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-O

#### Mechanical Data

- Case: SOD-123FL, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.01 grams (approx.)
- **Lead Free: For RoHS / Lead Free Version**



Dimensions in millimeters

#### Maximum Ratings and Electrical Characteristics @T

Characteristic	Symbol	DSK12	DSK13	DSK14	DSK15	DSK16	DSK18	DSK110	DSK115	DSK120	Unit	
Peak Repetitive Reverse Voltage	$V_{RRM}$	20	30	40	50	60	80	100	150	200	V	
Working Peak Reverse Voltage	$V_{RWM}$											
DC Blocking Voltage	$V_R$											
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	35	42	56	70	105	140	V	
Average Rectified Output Current @ $T_L = 75^\circ C$	$I_O$	1.0									A	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	25									A	
Forward Voltage @ $I_F = 1.0A$	$V_{FM}$	0.55			0.65			0.85			V	
Peak Reverse Current @ $T_A = 25^\circ C$ At Rated DC Blocking Voltage @ $T_A = 100^\circ C$	$I_{RM}$	0.08 10					0.05 5					mA
Typical Thermal Resistance (Note 1)	$R_{\theta JL}$ $R_{\theta JA}$	28 110										$^\circ C/W$
Typical Junction Capacitance	$C_j$	110			80						pF	
Operating Temperature Range	$T_j$	-55 to +150									$^\circ C$	
Storage Temperature Range	$T_{STG}$	-55 to +150									$^\circ C$	

Note: 1. Mounted on P.C. Board with 5.0mm<sup>2</sup> copper pad area.

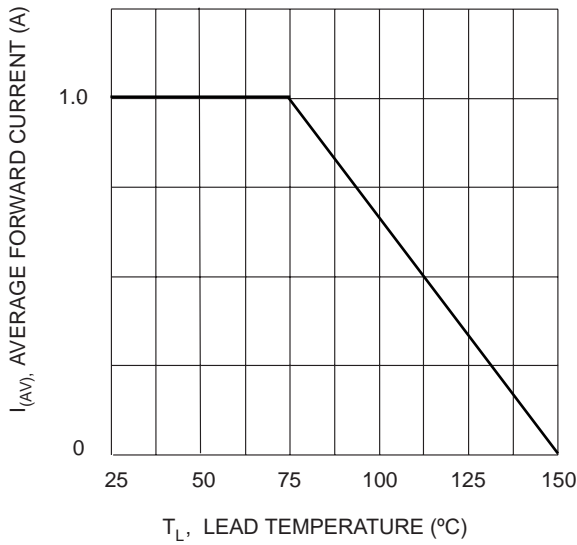


Fig. 1 Forward Current Derating Curve

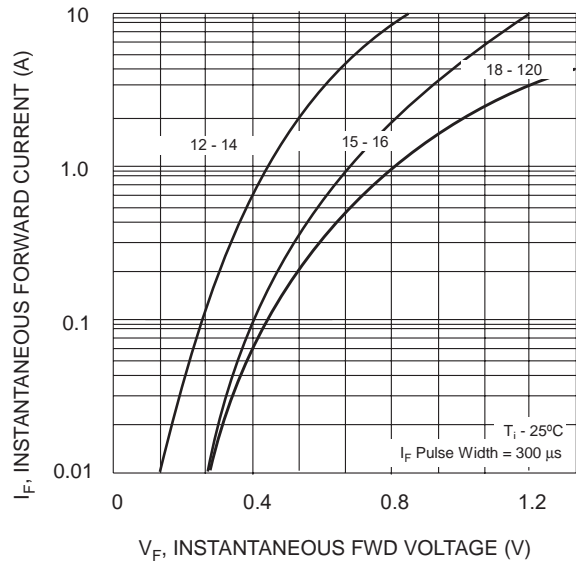


Fig. 2 Typ. Forward Characteristics

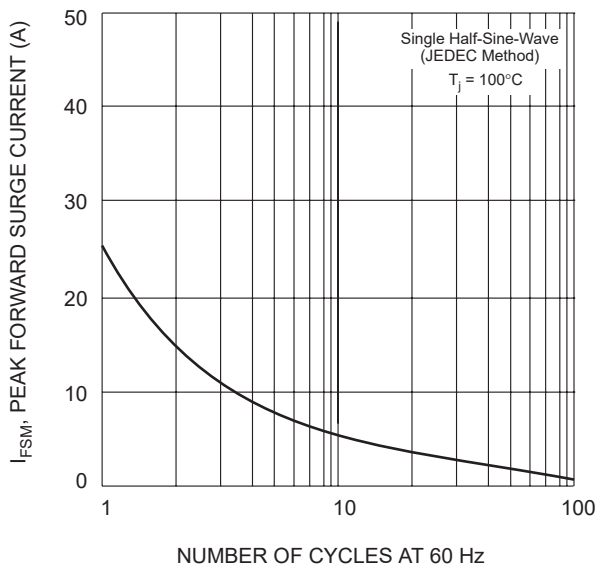


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

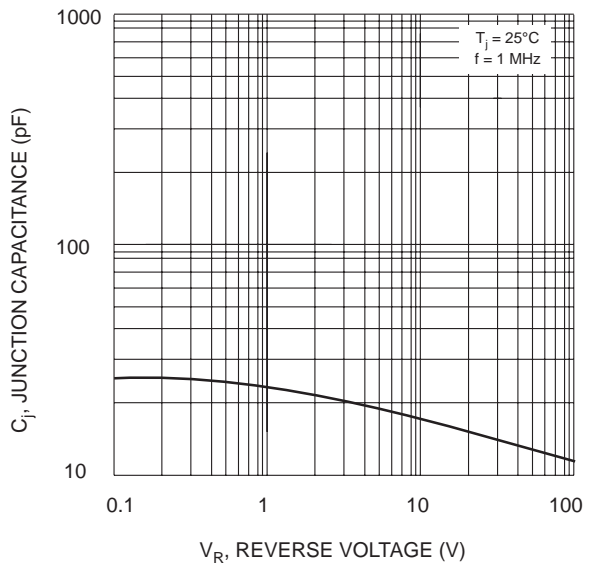


Fig. 4 Typical Junction Capacitance

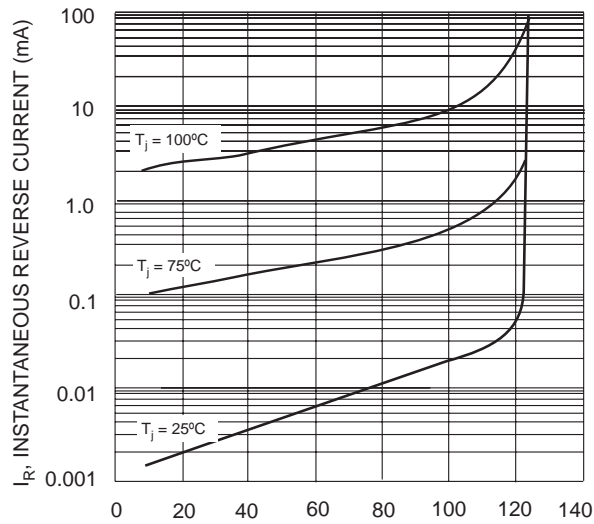


Fig. 5 Typical Reverse Characteristics