

1.0A SURFACE MOUNT SCHOTTKY RECTIFIERS



DSK12 TO DSK120

**SOD-123FL
PLASTIC PACKAGE**

RoHS Compliant

Polarity : Colour Band Denotes Cathode End

FEATURES

- 1). Surface Mount Application
- 2). Low Forward Voltage Drop
- 3). Low Reverse Leakage
- 4). High Forward Surge Current Capability
- 5). The Plastic Package Carries Underwriters Laboratory Flammability Classification 94V-O.
- 6). High Temperature Soldering Guaranteed : 250°C/10 seconds at Terminals
- 7). Weight : 0.02 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at $T_A=25^\circ\text{C}$ Ambient Temperature unless otherwise specified. Single Phase Half-Wave 60Hz, Resistive or Inductive Load. For Capacitive Load Current Derate by 20%)

CHARACTERISTICS	SYMBOL	DSK 12	DSK 14	DSK 16	DSK 18	DSK 110	DSK 115	DSK 120	UNIT
	Marking Code	K12	K14	K16	K18	K110	K115	K120	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	40	60	80	100	150	200	V
Maximum RMS Voltage	V_{RMS}	14	21	28	56	70	105	150	V
Maximum DC Blocking Voltage	V_{DC}	20	40	60	80	100	150	200	V
Maximum Average Forward Rectified Current at $T_L = 110^\circ\text{C}$	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current 8.3ms Single Half Sine -Wave Superimposed on Rated Load	I_{FSM}	30							A
Maximum Instantaneous Forward Voltage at 1.0A	V_F	0.55	0.70	0.85	0.95				V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^\circ\text{C}$	I_{R1}	0.5				0.1		mA
	$T_A=100^\circ\text{C}$	I_{R2}	20	10	2				mA
Typical Thermal Resistance (Note 1)	$R_{\theta J-A}$	88							$^\circ\text{C/W}$
Operating Junction and Storage Temperature Range	T_j, T_{stg}	-55 to +150							$^\circ\text{C}$

Note 1. P.C.B. mounted with 5.0*5.0mm Copper Pad Area

CHARACTERISTICS CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

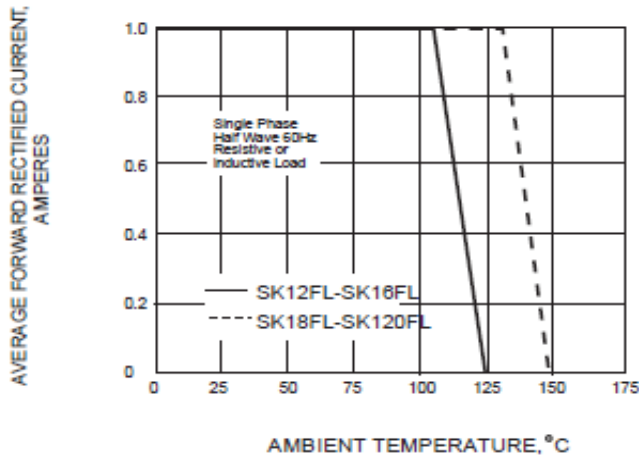


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

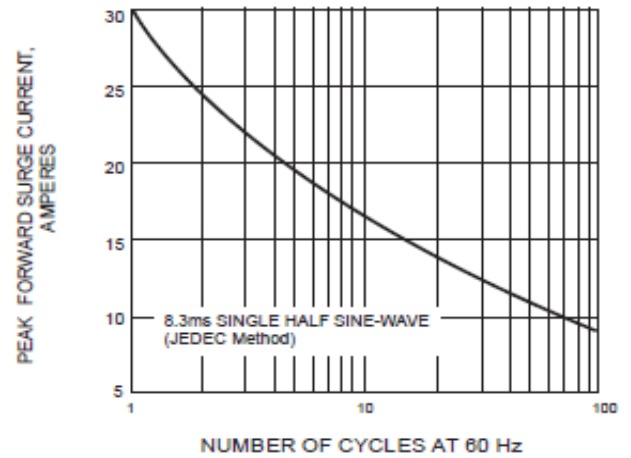


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

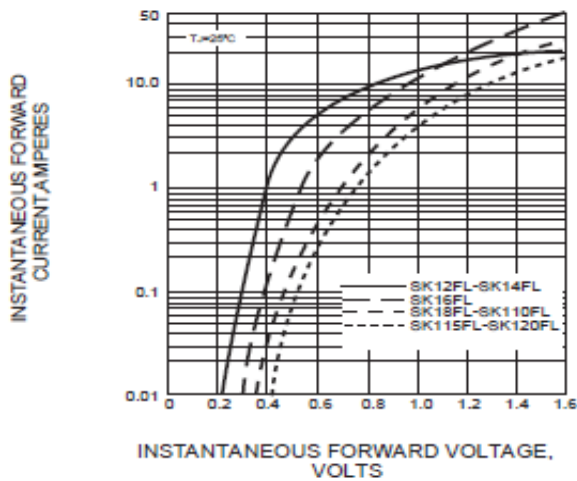


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

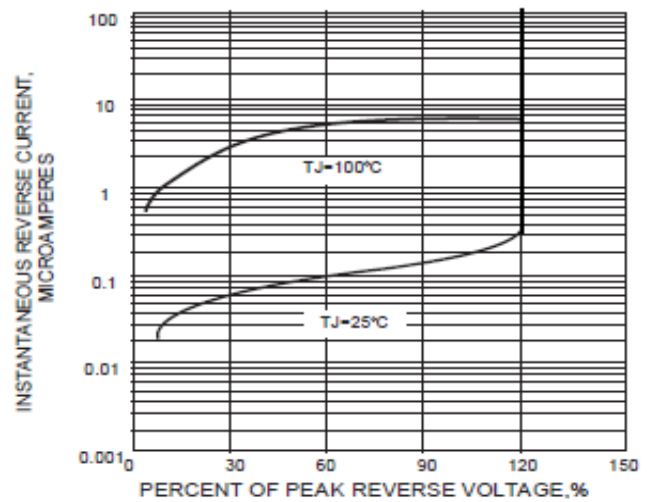
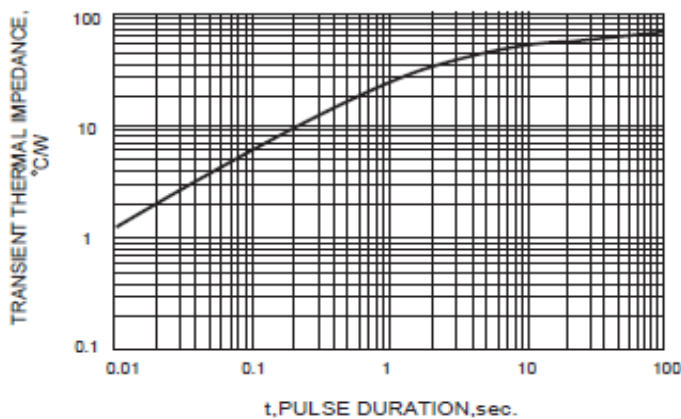
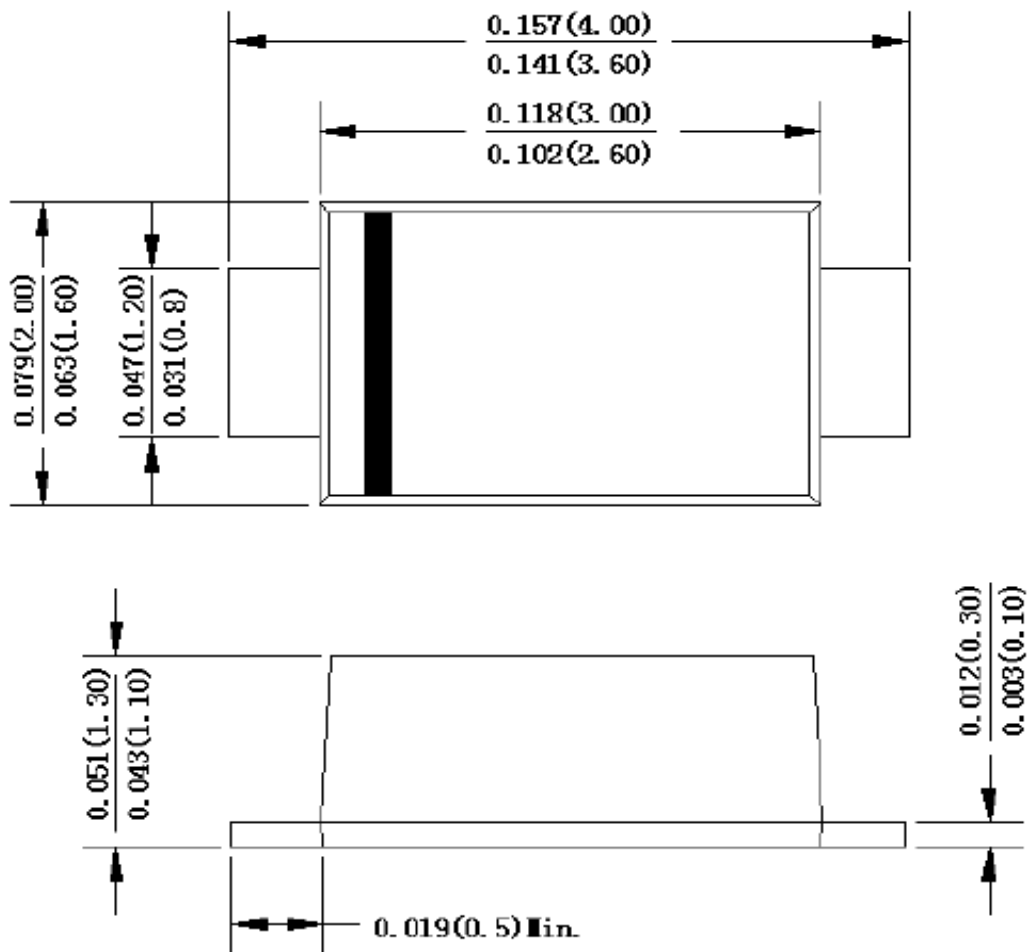


FIG. 5-TYPICAL TRANSIENT THERMAL IMPEDANCE



SOD-123FL PACKAGE OUTLINE AND DIMENSION



Dimensions in inches and (millimeters)



Continental Device India Pvt. Limited

An ISO/TS 16949, ISO 9001 and ISO 14001 Certified Company



Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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