

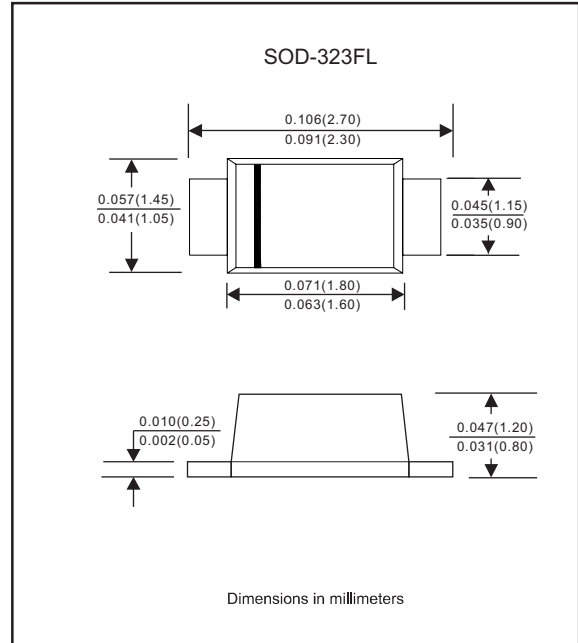
### Features

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency
- High forward surge capability
- Compliant to Halogen-free

### Mechanical data

- **Package:** SOD-323FL  
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

### Package outline



### Maximum ratings and Electrical characteristics (AT $T_a=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	60Hz sine wave, Resistance load	$I_o$			1.0	A
Forward surge current	@ 60Hz half-sine wave, 1 cycle, $T_j=25^\circ\text{C}$	$I_{FSM}$			30	A
	@1ms, square wave, 1 cycle, $T_j=25^\circ\text{C}$				60	A
Reverse current	$V_R = V_{RRM}$ $T_j = 25^\circ\text{C}$	$I_R$			0.5	mA
	$V_R = V_{RRM}$ $T_j = 125^\circ\text{C}$	$I_R$			30	mA
Thermal resistance	Junction to ambient NOTE 1	$R_{\theta JA}$		90		$^\circ\text{C}/\text{W}$
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	$C_j$		43		pF
Storage temperature		$T_{STG}$	-55		+175	$^\circ\text{C}$

Note: (1) Thermal resistance between junction and ambient and between junction and lead mounted on P.C.B with 3mm\*3mm copper pad areas.

SYMBOLS	$V_{RM}^{*1}$ (V)	$V_{RMS}^{*2}$ (V)	$V_R^{*3}$ (V)	$V_F^{*4}$ (V)	Operating temperature $T_j$ , ( $^\circ\text{C}$ )
DSK14-NF	40	28	40	0.55	-55 to +125
DSK16-NF	60	42	60	0.70	
DSK110-NF	100	70	100	0.85	-55 to +175
DSK115-NF	150	105	150	0.90	
DSK120-NF	200	140	200		

\*1 Repetitive peak reverse voltage

\*2 RMS voltage

\*3 Continuous reverse voltage

\*4 Maximum forward voltage@ $I_F=1.0\text{A}$

### Rating and characteristic curves

FIG1: I<sub>o</sub>-T<sub>c</sub> Curve

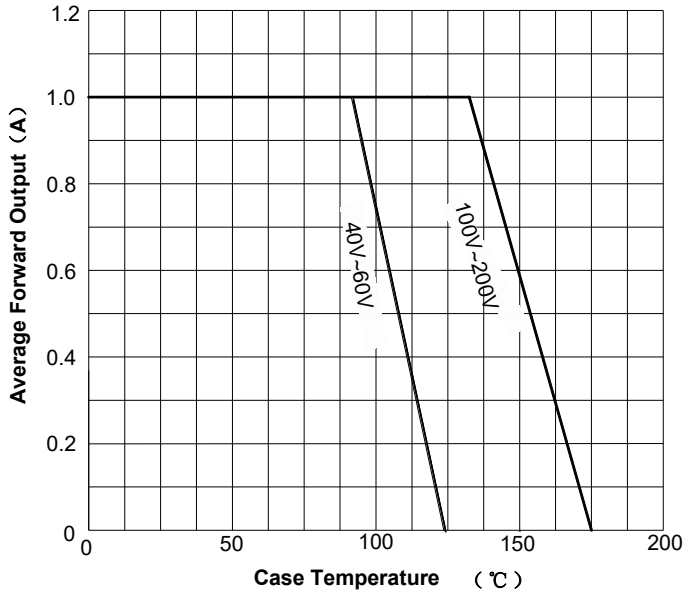


FIG2: Surge Forward Current Capability

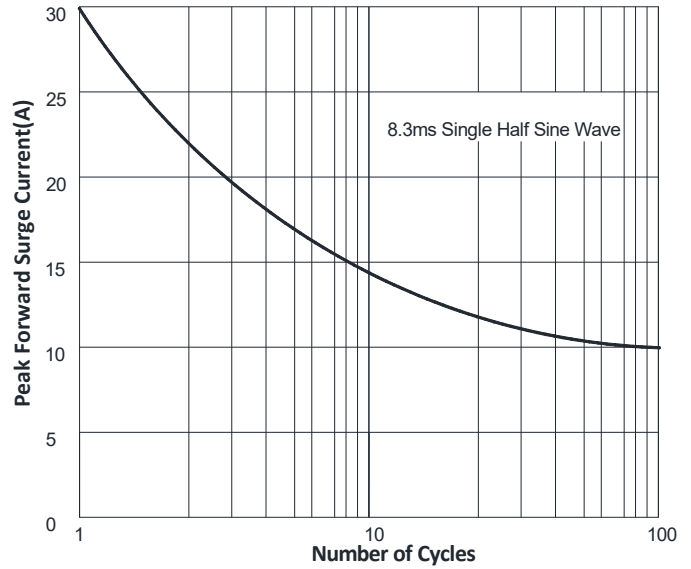


FIG3: Forward Voltage

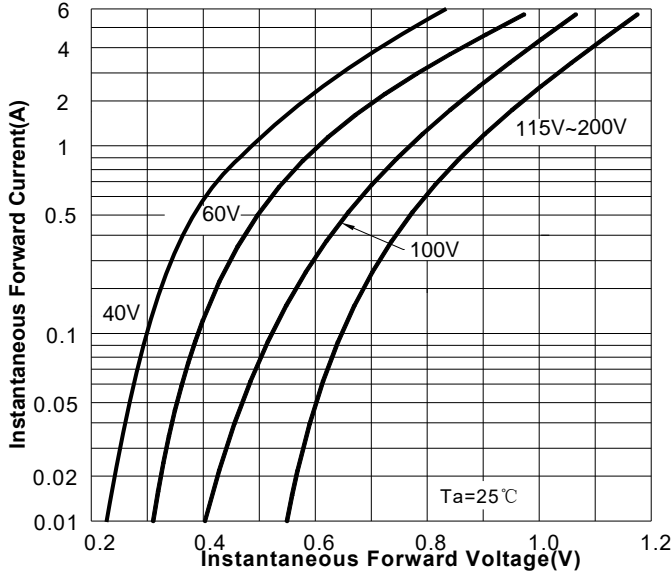
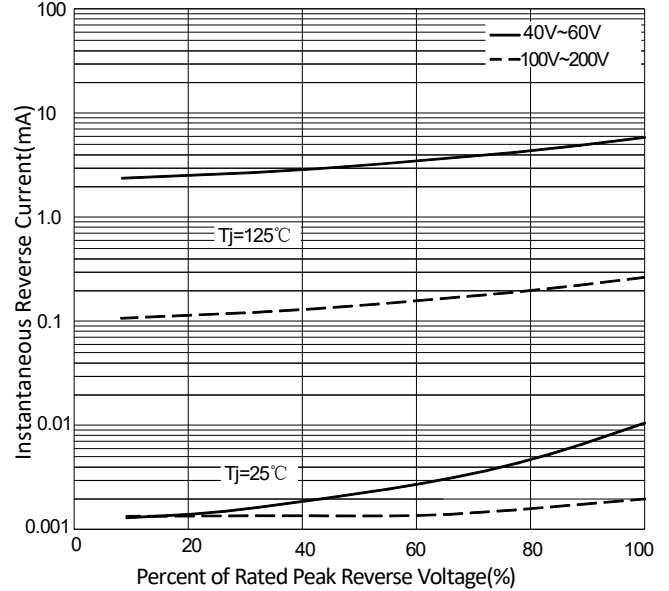
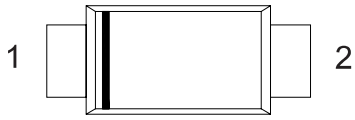



FIG4: Typical Reverse Characteristics



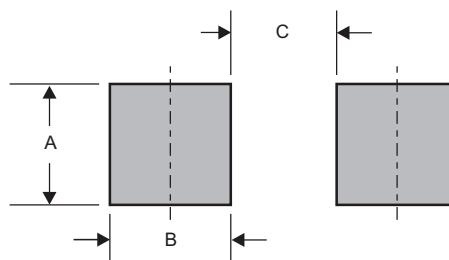
### Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

### Marking

Type number	Marking code
DSK14-NF	14
DSK16-NF	16
DSK110-NF	10
DSK115-NF	115
DSK120-NF	120

### Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SOD-323FL	0.059(1.50)	0.039(1.00)	0.051(1.30)