

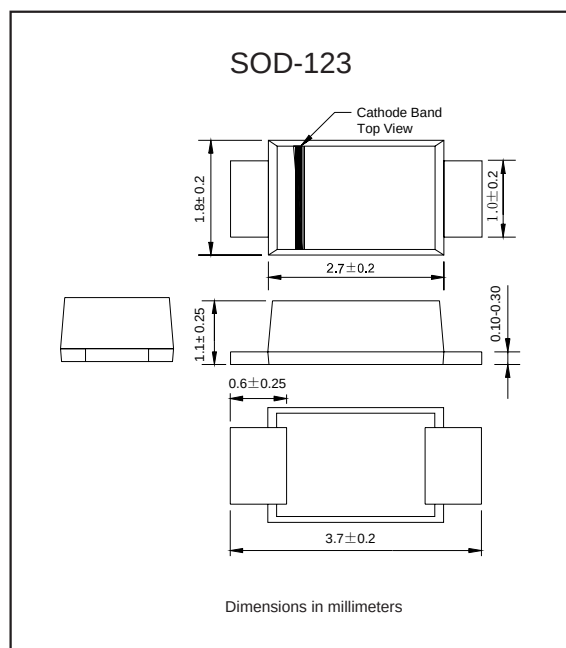
Features

- Easy pick and place
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Superfast recovery times for high efficiency
- Compliant to Halogen-free

Mechanical data

- Case: SOD-123
- Terminals: Solderable per MIL-STD-750, Method 2026

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	See Fig.2	I_O			2.0	A
Forward surge current	8.3ms single half sine-wave (JEDEC methode)	I_{FSM}			50	A
Reverse current	$V_R = V_{RRM} \quad T_a = 25^\circ\text{C}$	I_R			5.0	μA
	$V_R = V_{RRM} \quad T_a = 125^\circ\text{C}$				100	
Thermal resistance	Junction to ambient NOTE 1	$R_{\theta JA}$		75		$^\circ\text{C/W}$
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	C_J		30		pF
Storage temperature		T_{STG}	-55		+150	$^\circ\text{C}$

SYMBOLS	V _{RRM} ^{*1} (V)	V _{RMS} ^{*2} (V)	V _R ^{*3} (V)	V _F ^{*4} (V)	t _{rr} ^{*5} (ns)	Operating temperature T _J , (°C)
DSF2A	50	35	50	1.00	35	-55 to +150
DSF2B	100	70	100			
DSF2C	150	105	150			
DSF2D	200	140	200			
DSF2E	300	210	300	1.25		
DSF2G	400	280	400			
DSF2J	600	420	600	1.68		

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage@ $I_F=2.0\text{A}$

*5 Maximum Reverse recovery time, note 2

Note: 1.P.C.B. mounted with 0.2x0.2"(5.0x5.0mm) copper pad areas

2. Reverse recovery time test condition, $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$

Rating and characteristic curves

Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram

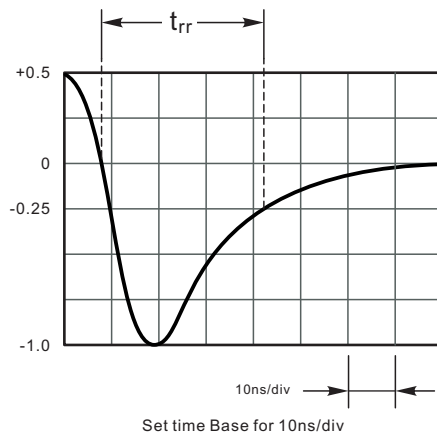
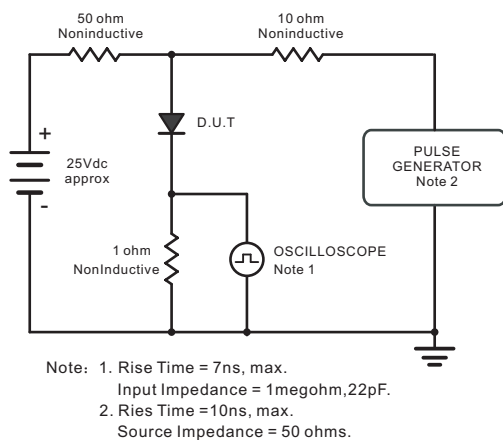


Fig.2 Maximum Average Forward Current Rating

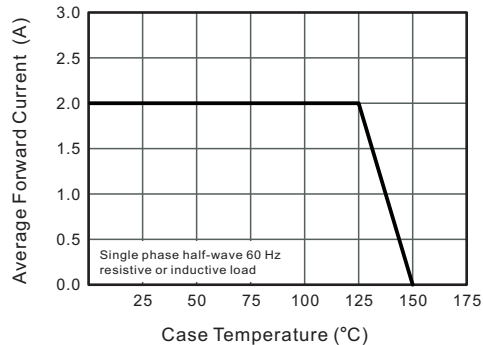


Fig.3 Typical Reverse Characteristics

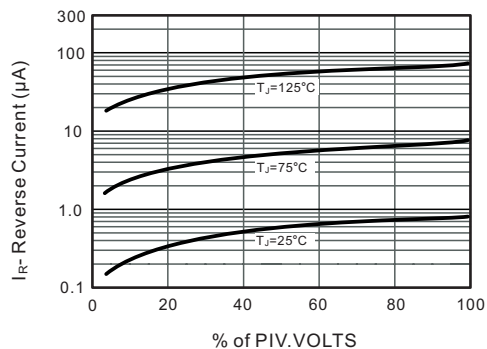


Fig.4 Typical Forward Characteristics

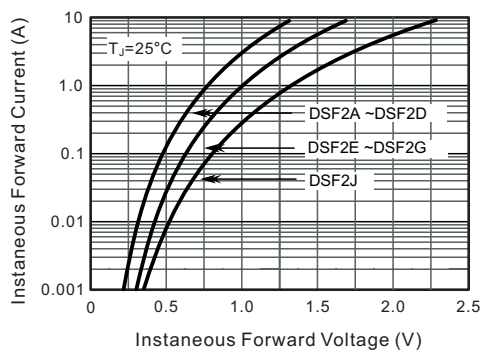


Fig.5 Typical Junction Capacitance

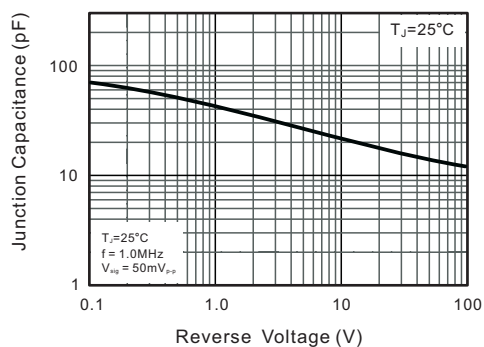
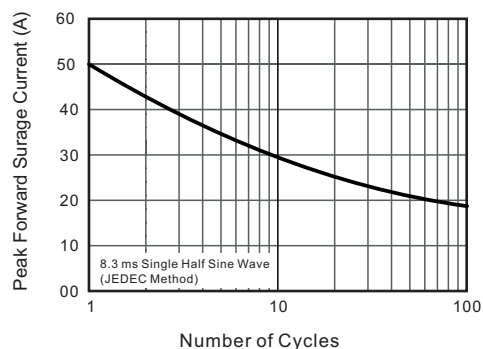


Fig.6 Maximum Non-Repetitive Peak Forward Surge Current



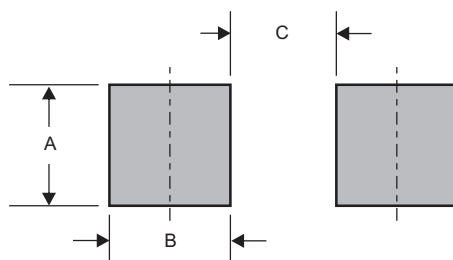
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
DSF2A	E2A
DSF2B	E2B
DSF2C	E2C
DSF2D	E2D
DSF2E	E2E
DSF2G	E2G
DSF2J	E2J

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SOD-123	0.075 (1.90)	0.055 (1.40)	0.075 (1.90)