

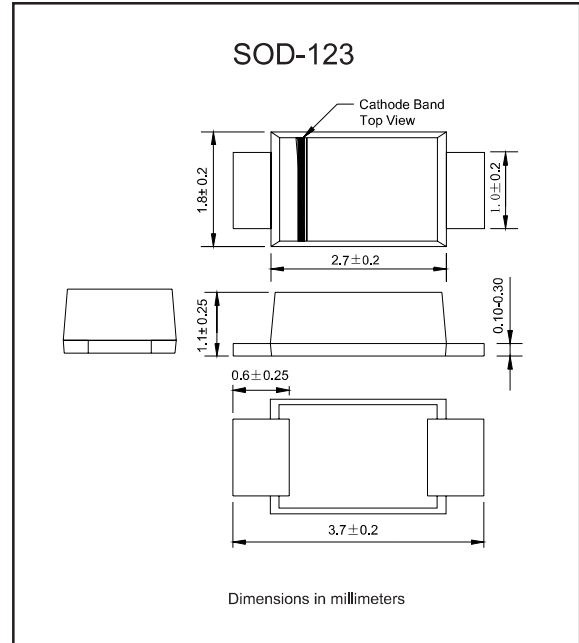
Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:
250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension
- ◆ Compliant to RoHS Directive 2011/65/EU
- ◆ Compliant to Halogen-free

Mechanical data

- ◆ **Case:** JEDEC SOD-123 molded plastic body
- ◆ **Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026
- ◆ **Polarity:** Color band denotes cathode end
- ◆ **Mounting Position:** Any

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.1	I_O			2.0	A
Forward surge current	8.3ms single half sine-wave (JEDEC method)	I_{FSM}			40	A
Reverse current	$V_R = V_{RRM}$ $T_A = 25^\circ\text{C}$	I_R			1.0	mA
	$V_R = V_{RRM}$ $T_A = 100^\circ\text{C}$				20	
Thermal resistance (1)	Junction to Ambient	$R_{\theta JA}$		85		$^\circ\text{C/W}$
	Junction to Case	$R_{\theta JC}$		23		
	Junction to Lead	$R_{\theta JL}$		15		
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	C_J		130		pF
Storage temperature		T_{STG}	-65		+150	$^\circ\text{C}$

Note: (1) Device mounted on p.c.b. with 10 mm x 20 mm x 0.1 mm copper pad area.

SYMBOLS	V_{RRM}^{*1} (V)	V_{RMS}^{*2} (V)	V_R^{*3} (V)	V_F^{*4} (V)	Operating temperature T_J , ($^\circ\text{C}$)
DSU24	40	28	40	0.40	-55 to +125

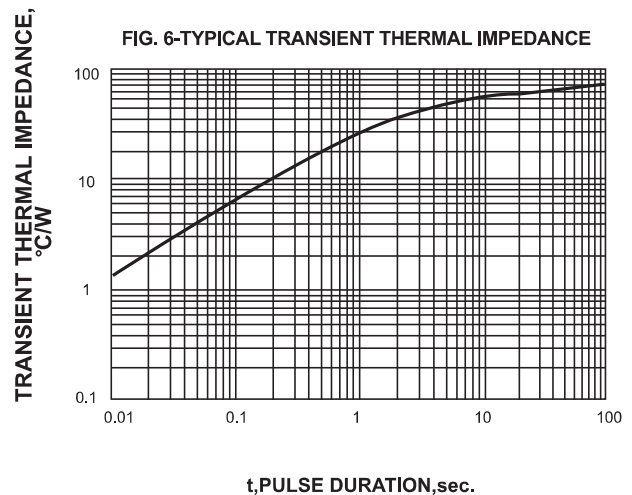
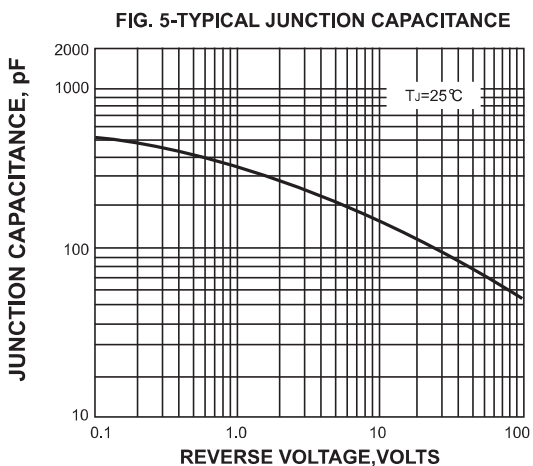
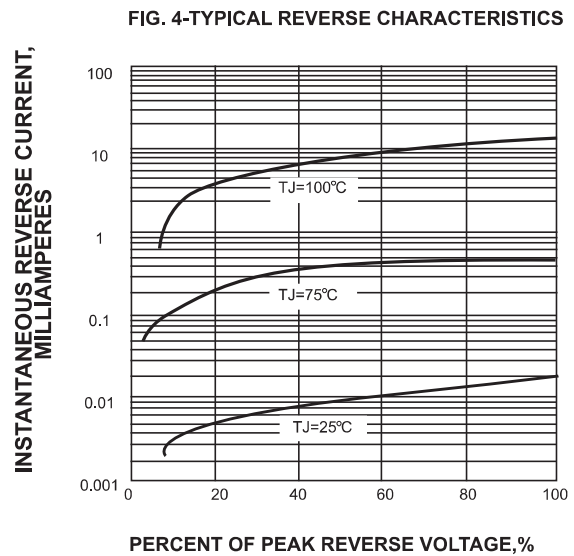
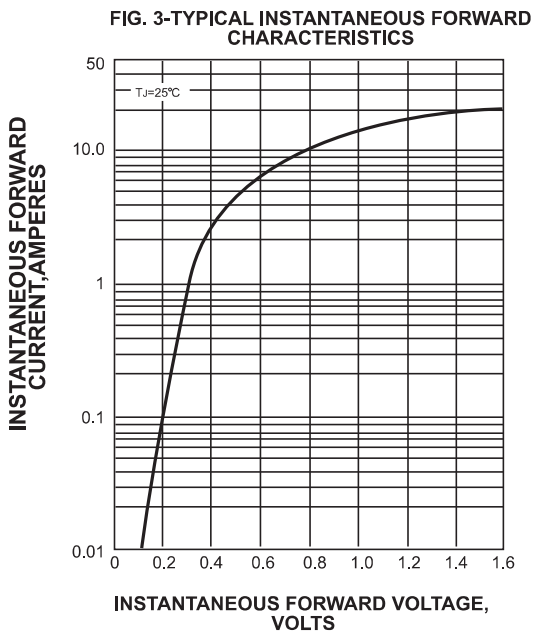
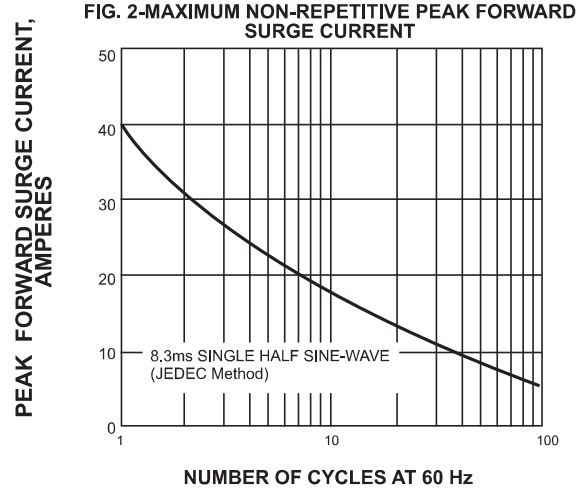
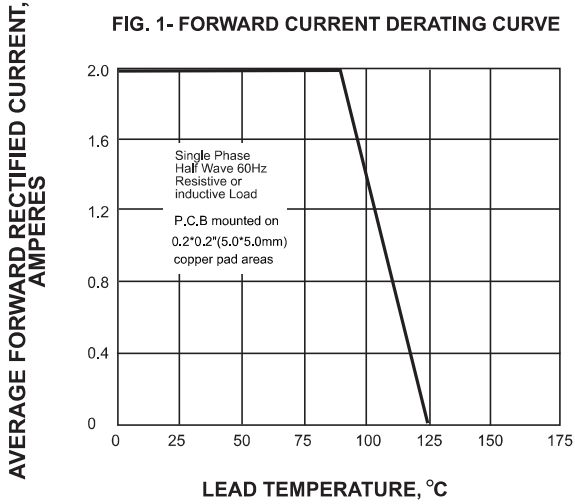
*1 Repetitive peak reverse voltage

*2 RMS voltage



*3 Continuous reverse voltage

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

Rating and characteristic curves



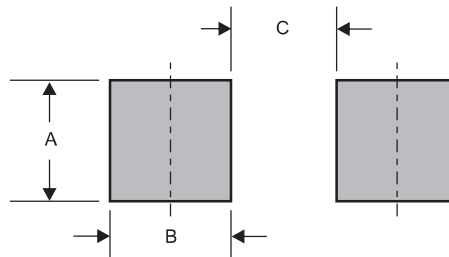
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
DSU24	24U

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)