

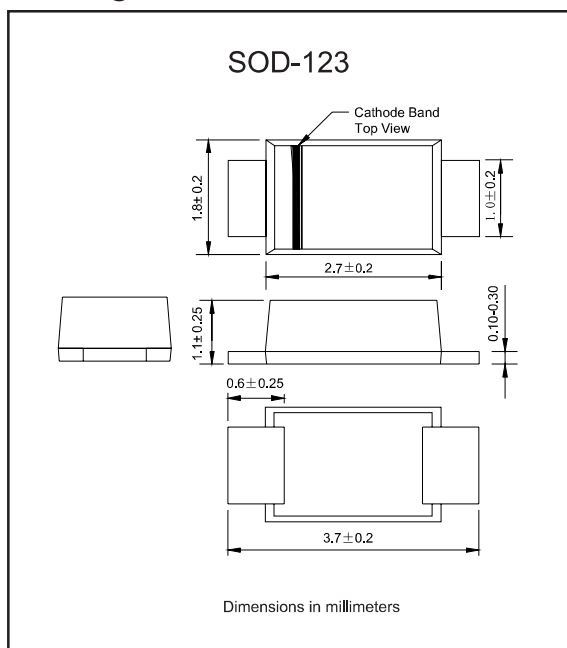
Features

- ◆ 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
- ◆ Suffix "-Q1" for AEC-Q101

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 methode)	I_{FSM}			40	A
Reverse current	$T_A = 25^\circ\text{C}$	$V_R = 20\text{V} - 60\text{V}$			0.5	mA
		$V_R = 80\text{V} - 200\text{V}$			0.1	
Reverse current	$T_A = 100^\circ\text{C}$	$V_R = 20\text{V} - 60\text{V}$			10	mA
		$V_R = 80\text{V} - 200\text{V}$			5	
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		220		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 , (°C)	
DSK22-Q1	20	14	20	0.55	-55 to +125	
DSK23-Q1	30	21	30			
DSK24-Q1	40	28	40			
DSK25-Q1	50	35	50	0.70	-55 to +150	
DSK26-Q1	60	42	60			
DSK28-Q1	80	56	80	0.85		
DSK210-Q1	100	70	100			
DSK215-Q1	150	105	150	0.92		
DSK220-Q1	200	140	200			

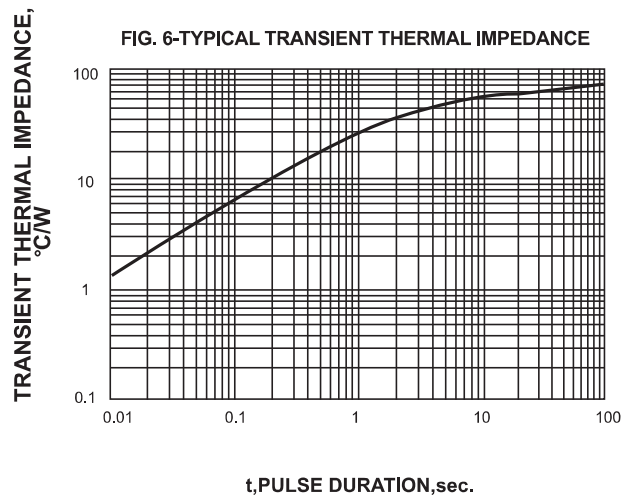
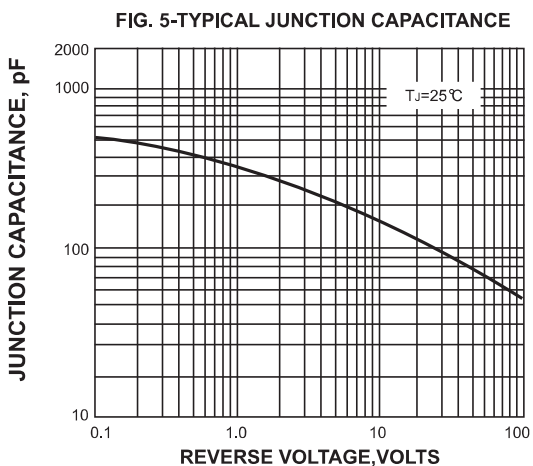
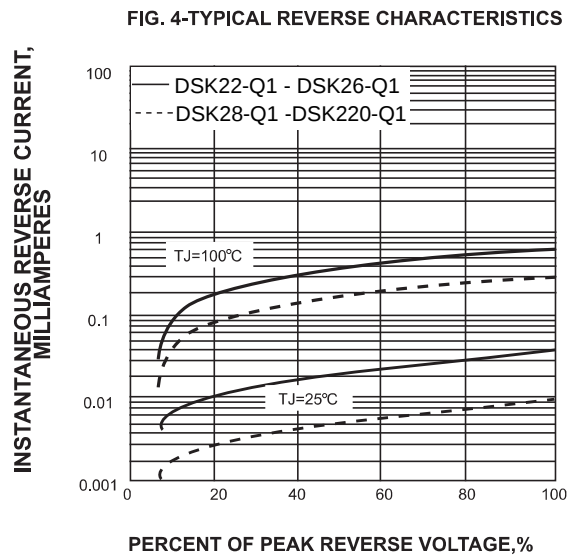
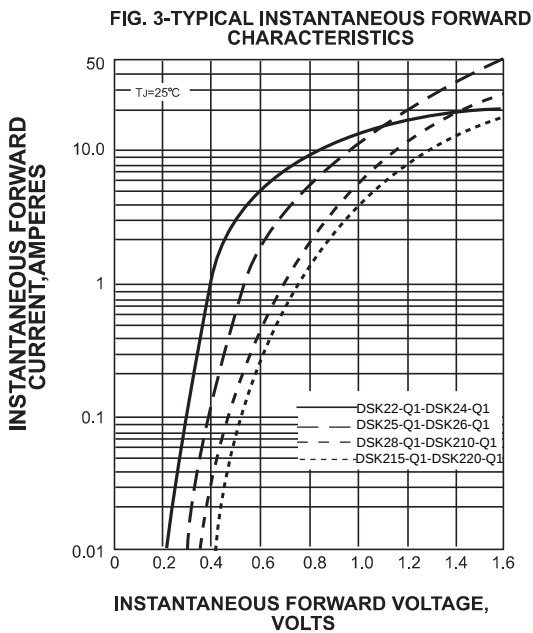
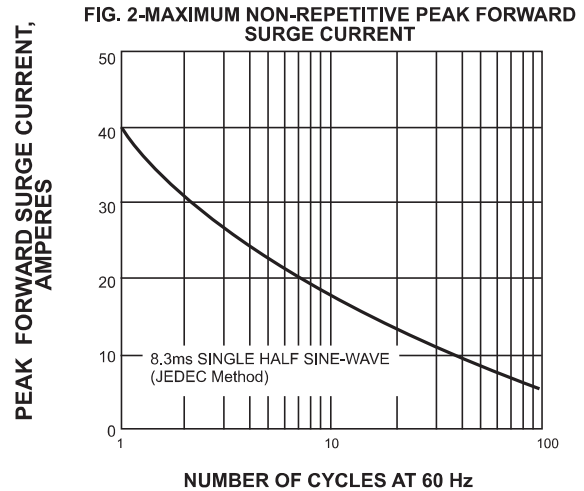
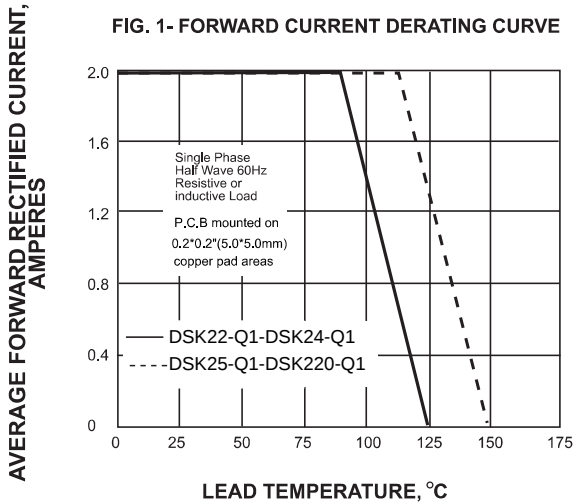
*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

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

Rating and characteristic curves



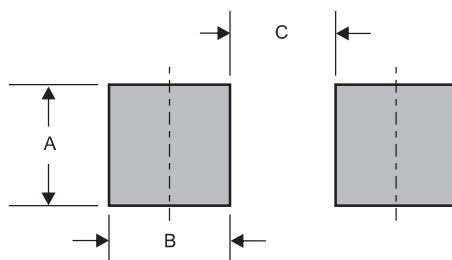
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
DSK22-Q1	22
DSK23-Q1	23
DSK24-Q1	24
DSK25-Q1	25
DSK26-Q1	26
DSK28-Q1	28
DSK210-Q1	20
DSK215-Q1	215
DSK220-Q1	220

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)