

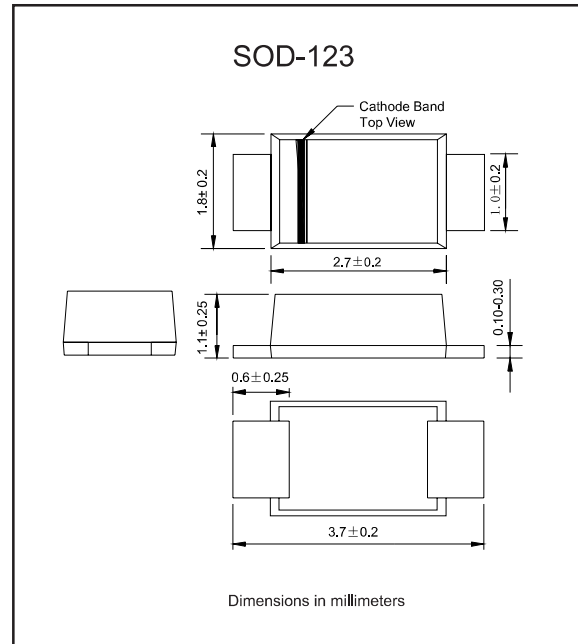
Features

- ▶ 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			3.0	A
Forward surge current	8.3ms single half sine-wave (JEDEC methode)		I_{FSM}			60	A
Reverse current	$T_A = 25^\circ\text{C}$	$V_R = 20\text{V} - 60\text{V}$	I_R			0.5	mA
		$V_R = 80\text{V} - 200\text{V}$				0.1	
Reverse current	$T_A = 100^\circ\text{C}$	$V_R = 20\text{V} - 60\text{V}$	I_R			10	mA
		$V_R = 80\text{V} - 200\text{V}$				5	
Thermal resistance	Junction to ambient NOTE 1		$R_{\theta JA}$		88		$^\circ\text{C}/\text{W}$
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.P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas

SYMBOLS	V_{RRM}^{*1} (V)	V_{RMS}^{*2} (V)	V_R^{*3} (V)	V_F^{*4} (V)	Operating temperature T_J , ($^\circ\text{C}$)
DSK32-Q1	20	14	20	0.55	-55 to +125
DSK33-Q1	30	21	30		
DSK34-Q1	40	28	40		
DSK35-Q1	50	35	50	0.70	-55 to +150
DSK36-Q1	60	42	60		
DSK38-Q1	80	56	80	0.85	
DSK310-Q1	100	70	100		
DSK315-Q1	150	105	150	0.92	
DSK320-Q1	200	140	200		

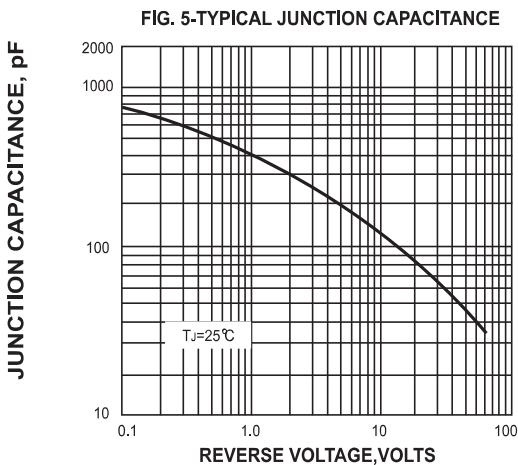
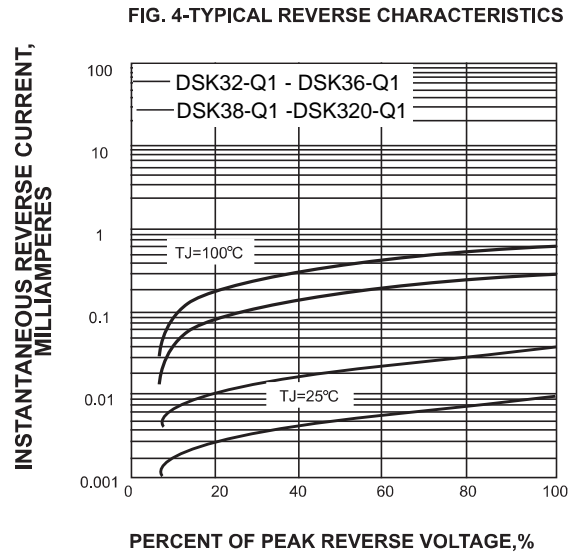
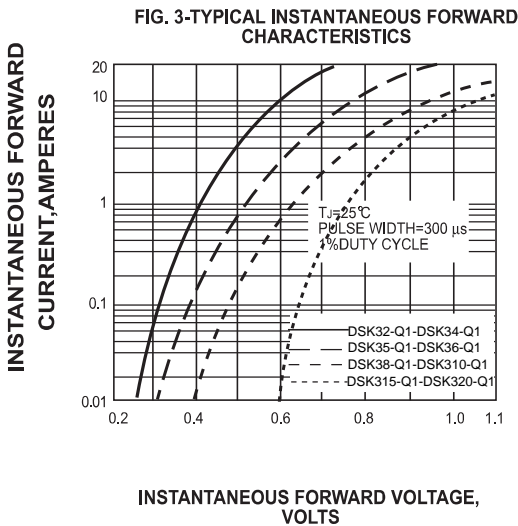
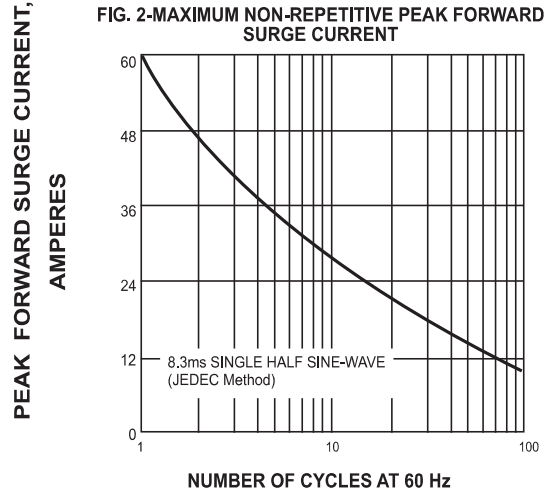
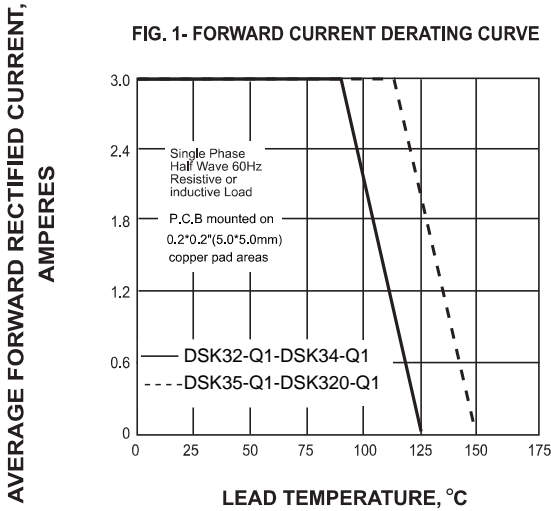
*1 Repetitive peak reverse voltage

*2 RMS voltage



*3 Continuous reverse voltage

*4 Maximum forward voltage@ $I_F=3.0\text{A}$

Rating and characteristic curves (DSK32-Q1 THRU DSK320-Q1)



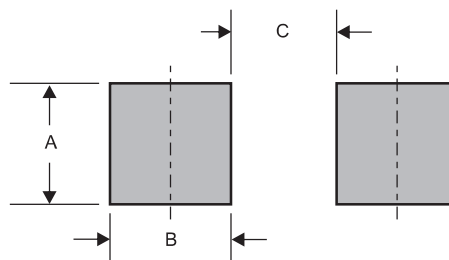
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
DSK32-Q1	32
DSK33-Q1	33
DSK34-Q1	34
DSK35-Q1	35
DSK36-Q1	36
DSK38-Q1	38
DSK310-Q1	30
DSK315-Q1	315
DSK320-Q1	320

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)