DSK14W

Surface Mount Schottky Barrier Rectifiers

Datasheet

Surface Mount Schottky Barrier Rectifier
Reverse Voltage - 40V
Forward Current - 1.0 A

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Marking Code: DSK14W---K14
Simplified outline SOD-123FL and symbol

FEATURES

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

- Case: SOD-123FL
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight:15mg 0.00048oz

Absolute Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %

Parameter	Symbols	DSK14W	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Maximum RMS voltage	V_{RMS}	28	V
Maximum DC Blocking Voltage	V_{DC}	40	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1.0	A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	25	A
Max Instantaneous Forward Voltage at 1 A	V_F	0.55	V
Maximum DC Reverse Current T_a = 25°C at Rated DC Reverse Voltage T_a =100°C	I_R	0.3 10	mA
Typical Junction Capacitance (1)	C_j	110	pF
Typical Thermal Resistance (2)	$R_{\theta JA}$	100	°C/W
Operating Junction Temperature Range	T_j	-55 ~ +125	°C
Storage Temperature Range	T_{stg}	-55 ~ +150	°C

（1）Measured at 1 MHz and applied reverse voltage of 4 VD.C
（2）P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Fig.1 Forward Current Derating Curve

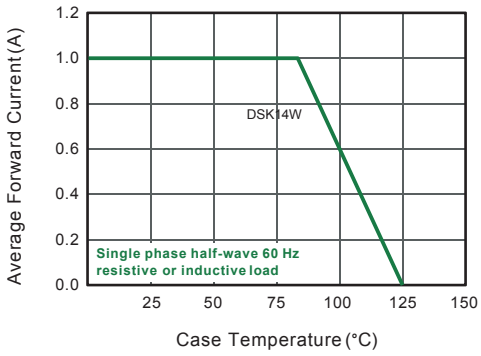


Fig.2 Typical Reverse Characteristics

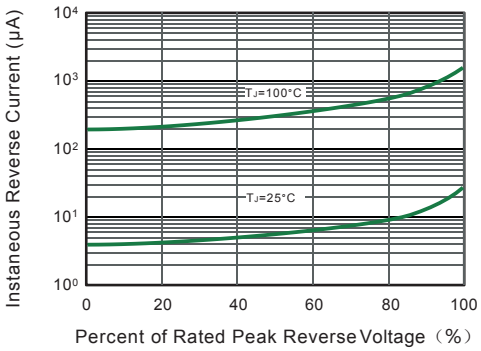


Fig.3 Typical Forward Characteristic

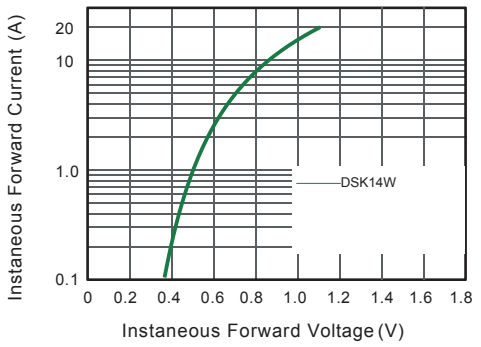


Fig.4 Typical Junction Capacitance

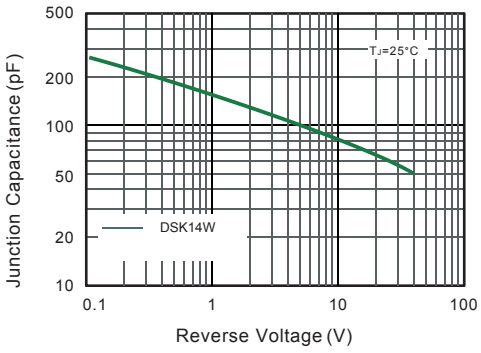


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

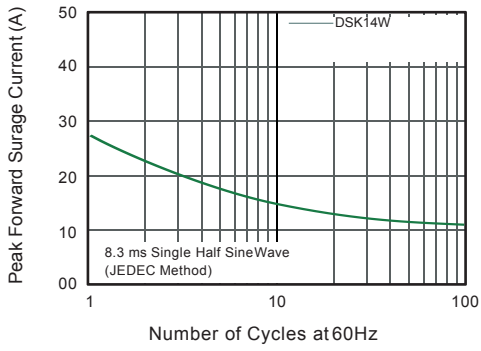
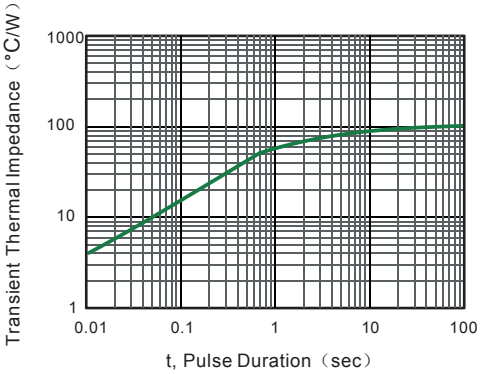
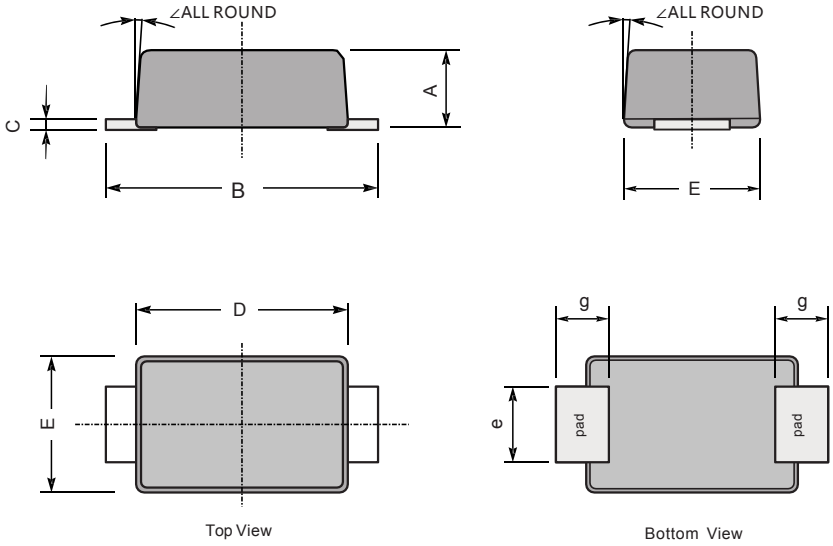


Fig.6- Typical Transient Thermal Impedance



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads **SOD-123FL**



UNIT		A	C	D	E	e	g	B	∠
mm	max	1.15	0.20	2.8	2.0	1.2	0.9	3.8	5°
	min	0.95	0.12	2.5	1.7	0.9	0.7	3.5	
mil	max	45	7.9	110	78.7	47	35	150	
	min	37	4.7	98	67	35	28	138	

The recommended mounting pad size

