DSK32 THRU DSK320

Surface Mount Schottky Barrier Rectifier
Reverse Voltage - 20 to 200 V
Forward Current - 3.0A

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

Top View
Marking Code: DSK32 ---K32
DSK34 ---K34
DSK36 ---K36
DSK38 ---K38
DSK310 ---K310
DSK312 ---K312
DSK315 ---K315
DSK320 ---K320
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	DSK32	DSK34	DSK36	DSK38	DSK310	DSK312	DSK315	DSK320	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	40	60	80	100	120	150	200	V
Maximum RMS voltage	V_{RMS}	14	28	42	56	70	84	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	40	60	80	100	120	150	200	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	3.0								A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	80								A
Max Instantaneous Forward Voltage at 3 A	V_F	0.55		0.70		0.85		0.95		V
Maximum DC Reverse Current T_a = 25°C at Rated DC Reverse Voltage T_a = 100°C	I_R	0.5 10		0.3 5						mA
Typical Junction Capacitance (1)	C_j	250		160						pF
Typical Thermal Resistance (2)	$R_{\theta JA}$	80								°C/W
Operating Junction Temperature Range	T_j	-55 ~ +125		-55 ~ +150						°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.

RoHS COMPLIANT

Pb-Free

Fig.1 Forward Current Derating Curve

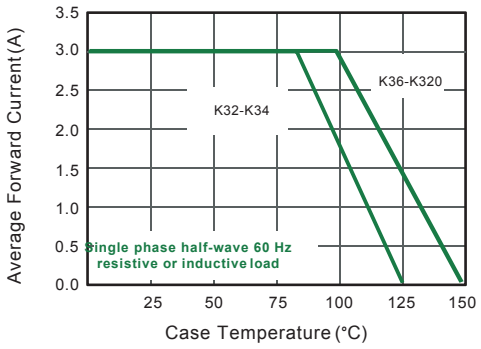


Fig.2 Typical Reverse Characteristics

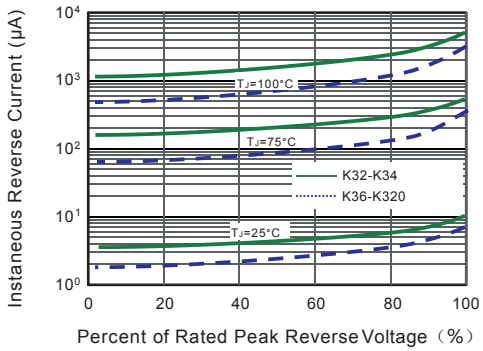


Fig.3 Typical Forward Characteristic

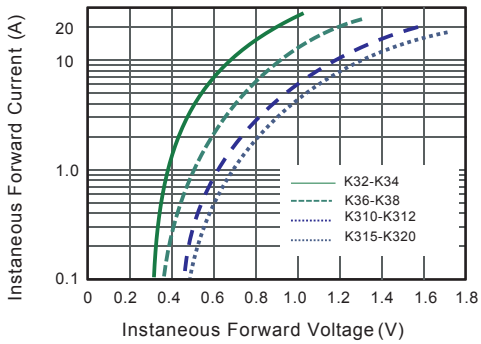


Fig.4 Typical Junction Capacitance

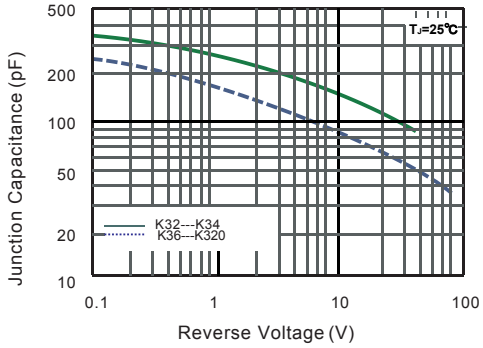


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

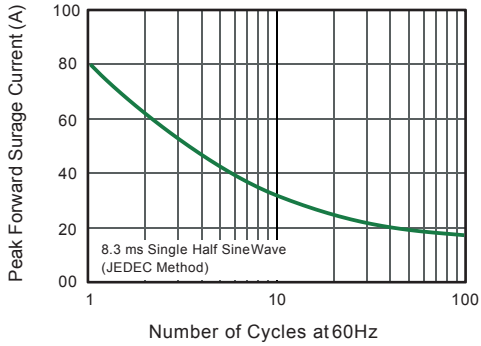
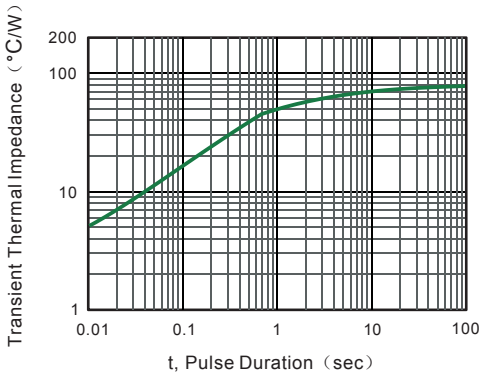


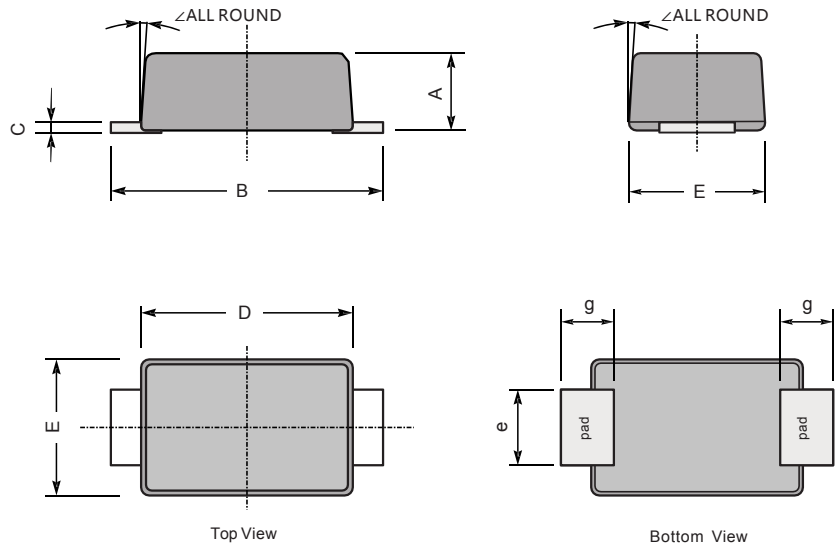
Fig.6- Typical Transient Thermal Impedance



PACKAGE OUTLINE

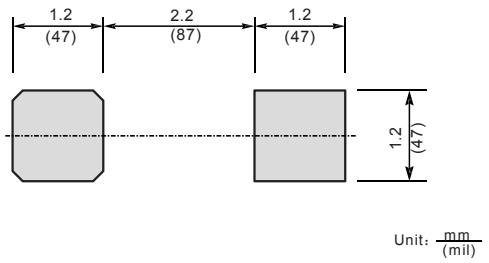
Plastic surface mounted package; 2 leads

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



Marking

Type number	Marking code
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