DSK32 THRU DSK320

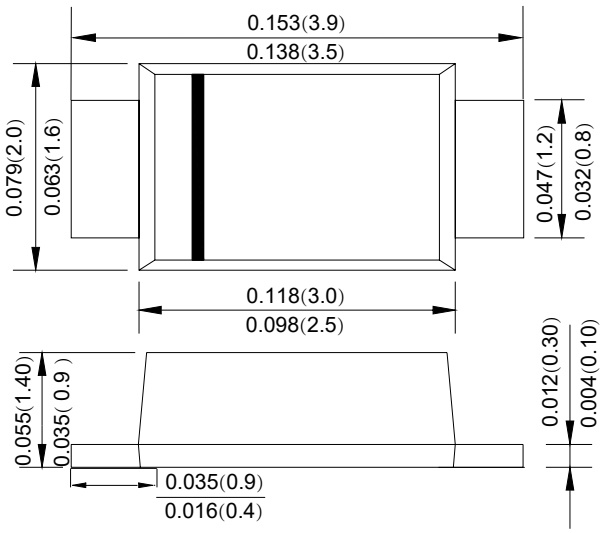
Surface Mount Schottky Rectifiers

FEATURES

RoHS COMPLIANT

- Low profile package
- Low power losses, high efficiency
- Easy to pick and place
- High forward surge capability
- High temperature soldering : 260℃/10 seconds at terminals
- Lead free in comply with EU ROHS 2011/65/EU directives

SOD-123FL



Dimensions in inches and (milimeters)

Mechanical Data

- **Case** : SOD-123FL
- **Terminals** : Solder plated, solderable per MIL-STD-750,Method 2026
- **Polarity** : Cathode line denotes the cathode end
- **Mounting Position** : Any

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current 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				70				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)	$R_{\theta JA}$	40								°C/W
Operating Junction Temperature Range	T_j	-55 ~ +125								°C
Storage Temperature Range	T_{stg}	-55 ~ +150								°C

1) Measured at 1MHz and applied reverse voltage of 4 V D.C.
2) P.C.B. mounted with 0.2 X 0.2" (5 X 5 mm) copper pad areas.

Characteristic Curves (T =25 ℃ unless otherwise noted)

Fig.1 Forward Current Derating Curve

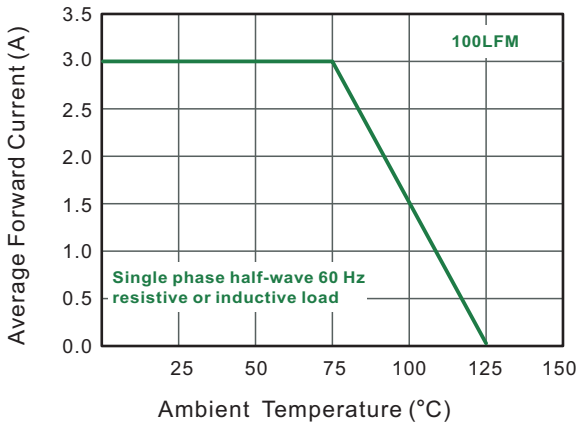


Fig.2 Typical Reverse Characteristics

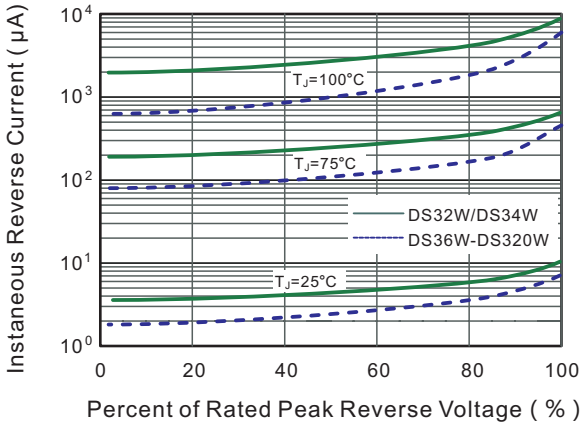


Fig.3 Typical Forward Characteristic

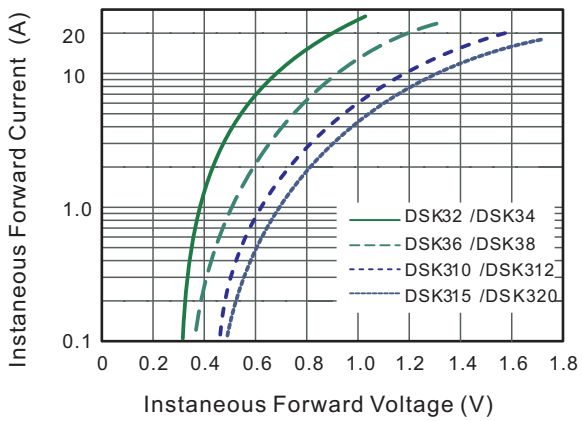


Fig.4 Typical Junction Capacitance

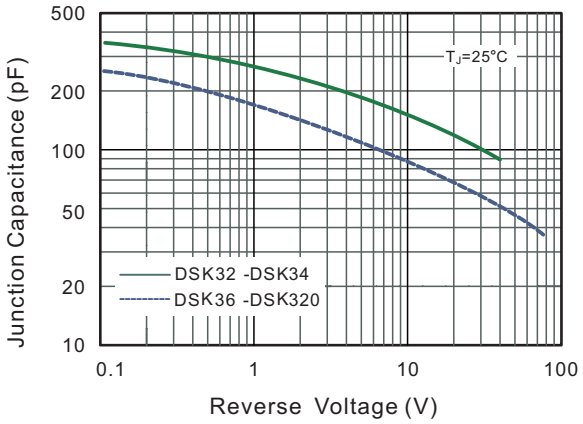


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

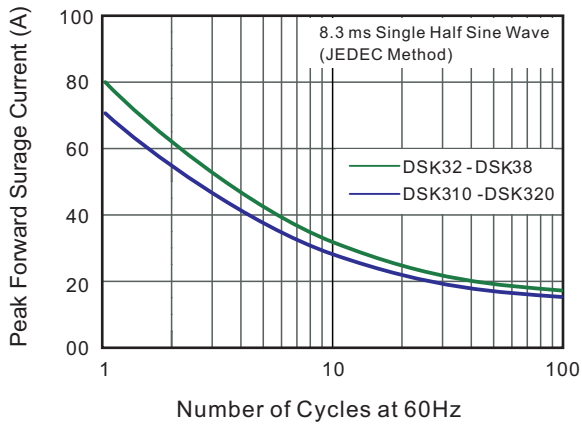
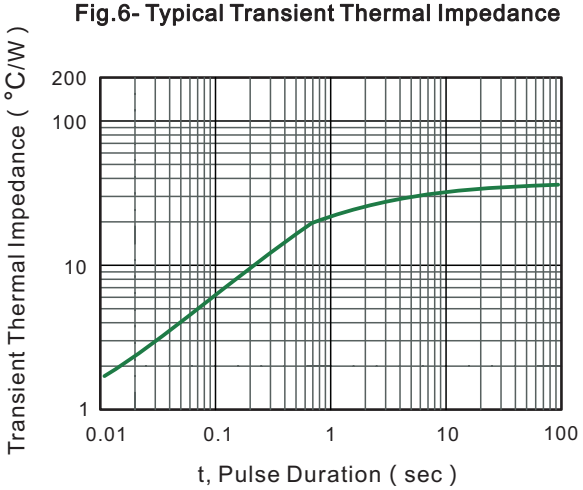
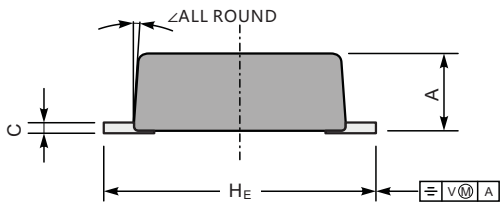


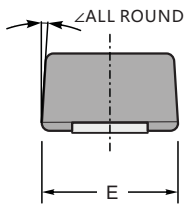
Fig.6- Typical Transient Thermal Impedance

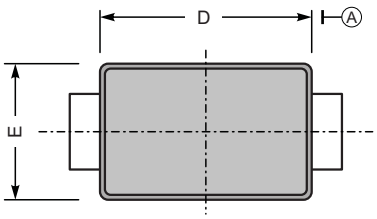


PACKAGE OUTLINE

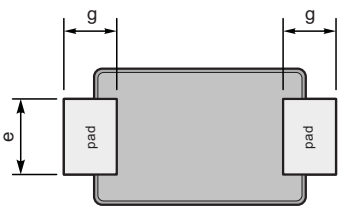
Plastic surface mounted package; 2 leads SOD-123FL







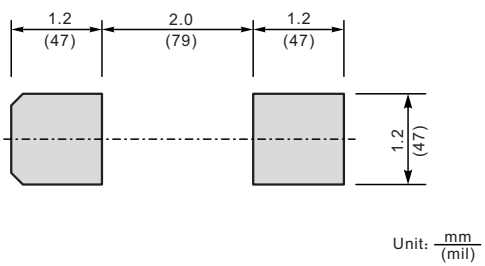
Top View



Bottom View

UNIT		A	C	D	E	e	g	H_E	∠
mm	max	1.30	0.20	2.9	1.95	1.1	0.9	3.8	7°
	min	0.9	0.12	2.5	1.60	0.7	0.7	3.5	
mil	max	51.2	7.9	114	77	43	35	150	
	min	35	4.7	98	63	27.6	27.6	138	

The recommended mounting pad size



Marking

Type number	Marking code
DSK32	K32
DSK34	K34
DSK36	K36
DSK38	K38
DSK310	K310
DSK312	K312
DSK315	K315
DSK320	K320