



DSK12 THRU DSK120

Surface Mount Schottky Rectifiers

Reverse Voltage - 20 to 200 V
Forward Current - 1.0 A

FEATURES

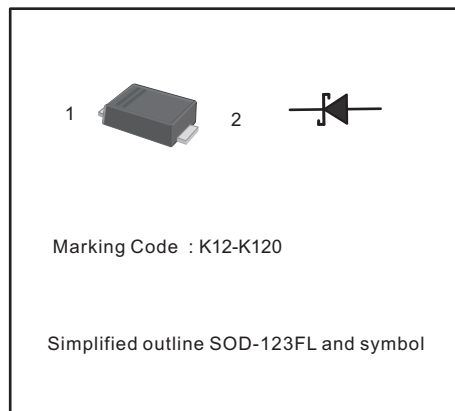
- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

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

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



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	DSK12	DSK14	DSK16	DSK18	DSK110	DSK112	DSK115	DSK120	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)}	1.0								A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	40				30				A
Max Instantaneous Forward Voltage at 1 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	0.3 10				0.2 5		0.1 2		mA
Typical Junction Capacitance ¹⁾	C _j	110		80						pF
Typical Thermal Resistance ²⁾	R _{θJA}	115								°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.



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Characteristic Curves ($T_J = 25^\circ\text{C}$ unless otherwise noted)

Fig.1 Forward Current Derating Curve

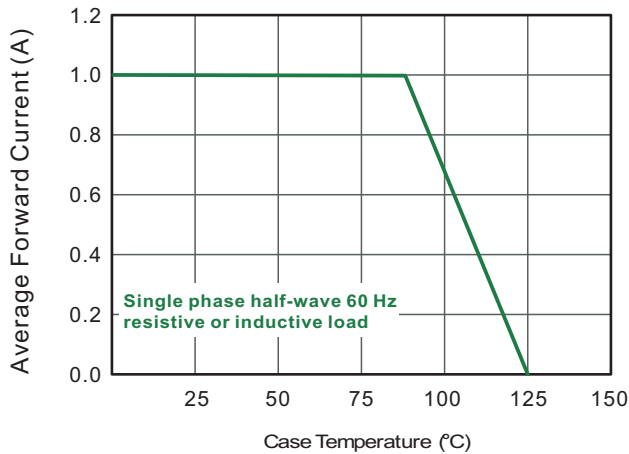


Fig.2 Typical Reverse Characteristics

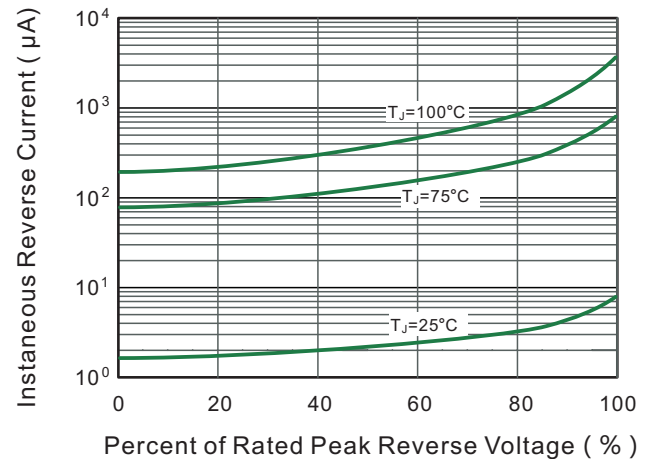


Fig.3 Typical Forward Characteristic

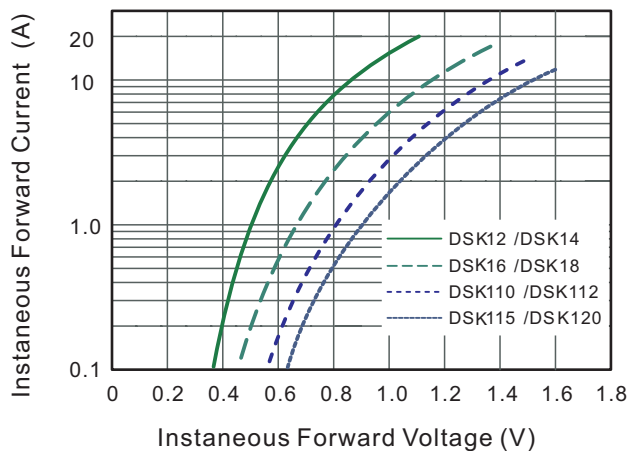


Fig.4 Typical Junction Capacitance

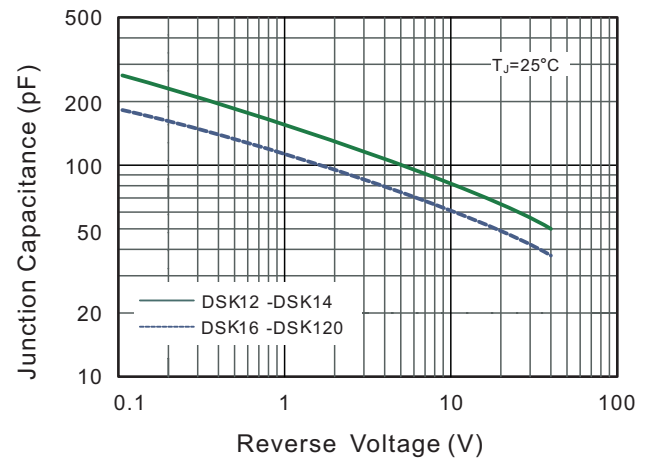


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

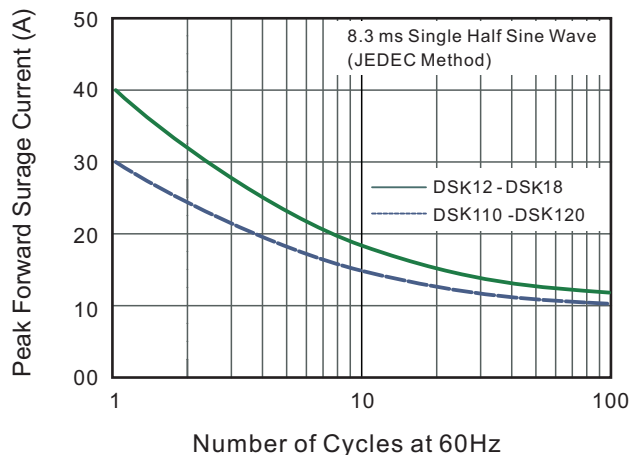
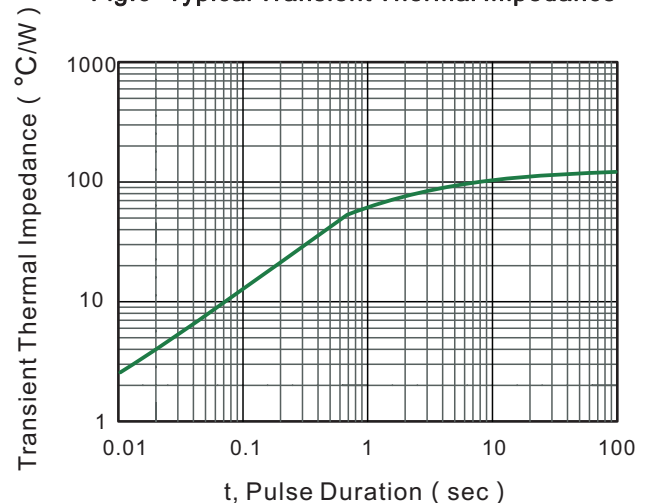


Fig.6- Typical Transient Thermal Impedance





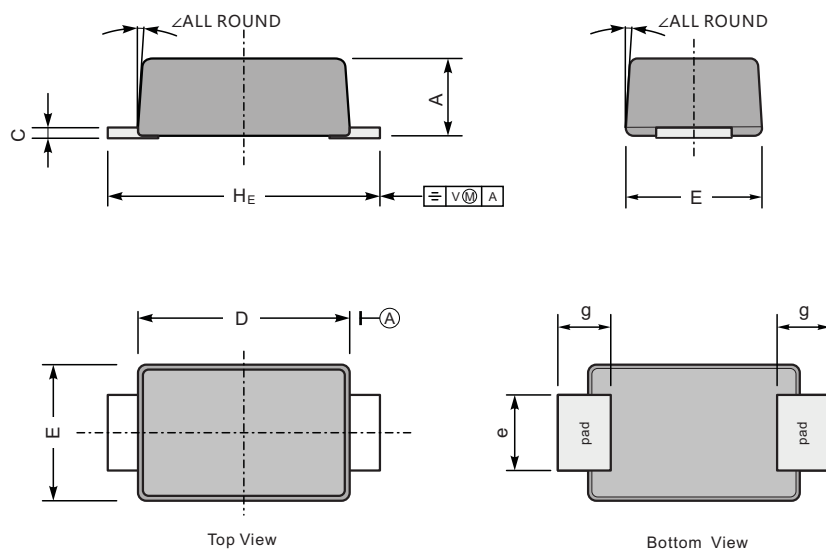
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PACKAGE OUTLINE

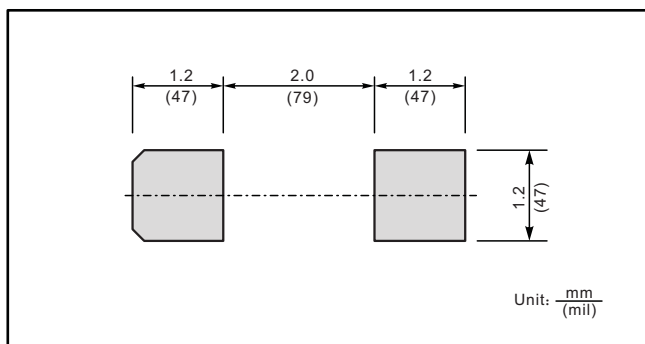
Plastic surface mounted package; 2 leads

SOD-123FL



UNIT		A	C	D	E	e	g	HE	∠
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	31	27.6	138	

The recommended mounting pad size



Marking

Type number	Marking code
DSK12	K12
DSK14	K14
DSK16	K16
DSK18	K18
DSK110	K110
DSK112	K112
DSK115	K115
DSK120	K120