



DSK12 THRU DSK120

1 0 AMP Surface Mount Schottky Barrier Rectifiers

FEATURES

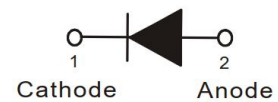
- Low Power Loss, High Efficiency
- Ideally Suited for Automatic Assembly
- For Use in Low Voltage Application
- Plastic Case Material has UL Flammability Classification Rating 94V- 0

MECHANICAL DATA

- Case: SOD-123FL, Molded plastic
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026 guaranteed
- Mounting position: Any



SOD-123FL



Electrical Characteristics

Maximum Ratings ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	DSK12	DSK14	DSK16	DSK18	DSK110	DSK112	DSK115	DSK120	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	40	60	80	100	120	150	200	V
Working Peak Reverse Voltage	V_{RWM}									
DC blocking Voltage	V_{DC}									
Maximum RMS Voltage	V_{RMS}	14	28	42	56	70	84	105	140	V
Average Rectified Output Current	I_F (AV)	1.0								A
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load	I_{FSM}	25								A
Forward Voltage at 1.0 A	V_F-Max	0.55		0.70		0.85		0.90		V
Maximum DC Reverse Current Ta=25℃	I_R	0.3				0.2		0.1		mA
Maximum DC Reverse Current Ta=100℃		10				5		2		
Typical Junction Capacitance (Note 1)	C_J	110		80						pF
Typical Thermal Resistance(Note 2)	R_{θJA}	100								℃/W
Operation Junction	T_J	-55 to +125								℃
Storage Temperature	T_{STG}	-55 to +150								℃

Notes:

1. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C
2. P.C.B. mounted with 2 .0" X 2 .0" (5 X 5 cm) copper pad areas .

Rating and characteristics curves

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Fig. 1 Forward Current Derating Curve

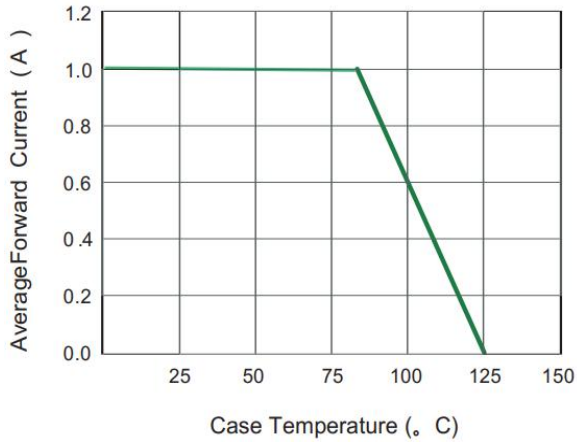


Fig. 2 Typical Reverse Characteristics

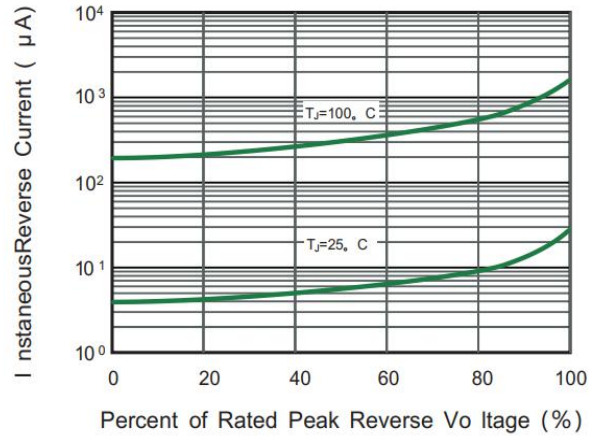


Fig. 3 Typical Forward Characteristics

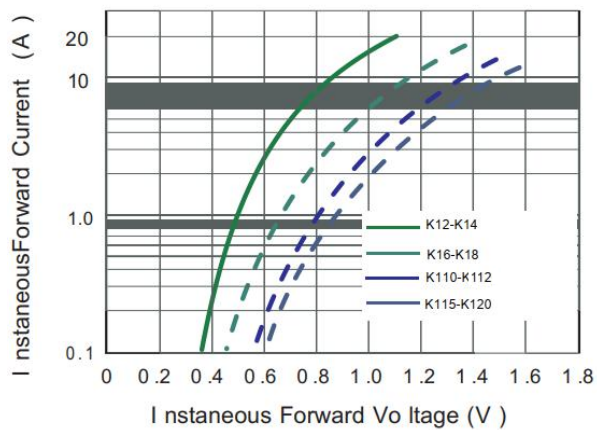


Fig. 4 Typical Junction Capacitance

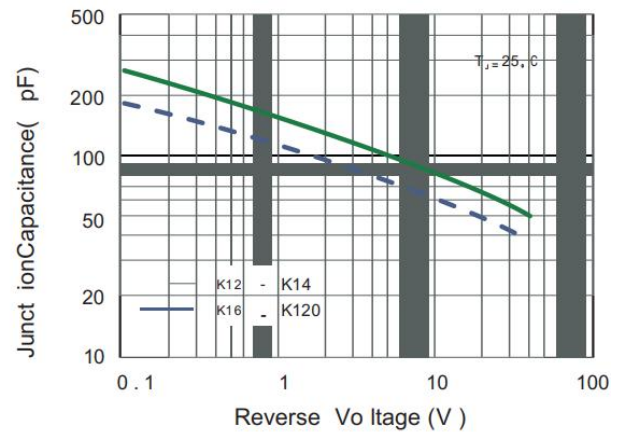


Fig. 5 Maximum Non-Repetitive Peak Forward Surge Current

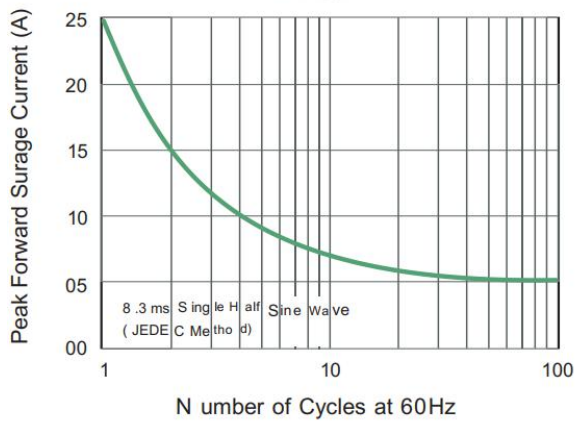
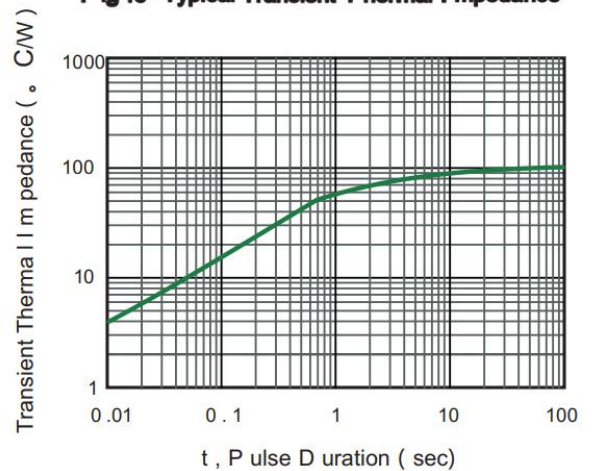
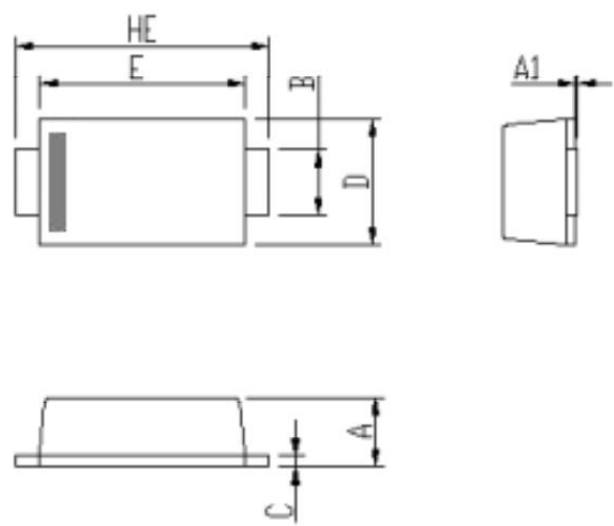


Fig. 6- Typical Transient Thermal Impedance



Dimension

SOD-123FL PACKAGE OUTLINE



DIM	Unit: mm		Unit: inch	
	MIN	MAX	MIN	MAX
A	0.9	1.08	0.035	0.043
A1	0	0.1	0.000	0.004
B	0.85	1.05	0.033	0.041
C	0.1	0.25	0.004	0.010
D	1.7	2	0.067	0.079
E	2.4	2.6	0.094	0.102
L	0.43	0.83	0.017	0.033
HE	3.5	3.9	0.138	0.154

