Schottky Barrier Rectifiers

1 General Description

1.1 Features

- Metal to silicon rectifier, majority carrier conduction.
- Low profile package
- Low power loss ,high efficiency
- High surge capacity
- High current capability
- Low forward voltage drop

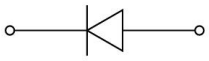
REVERSE VOLTAGE
20-200V
FORWARD CURRENT
3Ampere

1.2 Typical Applications

- For use in low voltage ,high frequency inverters, free wheeling,and polarity protection applications

1.3 Mechanical Data

- Case:SOD-123FL, molded plastic body
- Terminals: solder plated ,solderable per MIL-STD-750,method 2026
- Polarity: color band denotes cathode end



2 Maximum Ratings(TA=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	DSK32	DSK34	DSK35	DSK36	DSK38	DSK310	DSK315	DSK320	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	40	50	60	80	100	150	200	V
Maximum RMS Voltage	V_{RMS}	14	28	35	42	56	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	40	50	60	80	100	150	200	V
Maximum Average Forward Rectified Current at T_A=75℃	$I_{F(AV)}$	3.0								A
Peak Forward Surge Current 8.3 ms single half sine-wave super imposed on rated load (JEDEC Method)	I_{FSM}	80								A
Operating Temperature Range	T_J	-55 to +150								℃
Storage Temperature Range	T_{STG}	-55 to +150								℃
Thermal Resistance Junction to Ambient(Note 1)	$R_{\theta JA}$	80								°C/W

Notes:

1.*Device mounted on FR-4 PCB 0.55 x 0.55" (14 x 14 mm).

2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

3 Electrical Characteristics(TA=25℃ Unless otherwise specified)

PARAMETER		SYMBOL	DSK32	DSK34	DSK35	DSK36	DSK38	DSK310	DSK315	DSK320	UNIT
Maximum instantaneous Forward Voltage at 3.0A DC		V_F	0.55		0.70		0.85		0.95		V
Typical junction capacitance (Note 2)		C_j	250		160						pF
Reverse Current at Rated DC Blocking Voltage	Ta=25℃	I_R	0.5		0.3						mA
	Ta=100℃		10		5						

4 Characteristics Curves(TA=25℃ Unless otherwise specified)

Fig.1 Forward Current Derating Curve

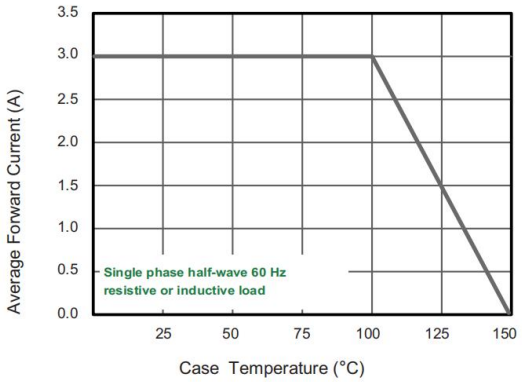


Fig.2 Typical Reverse Characteristics

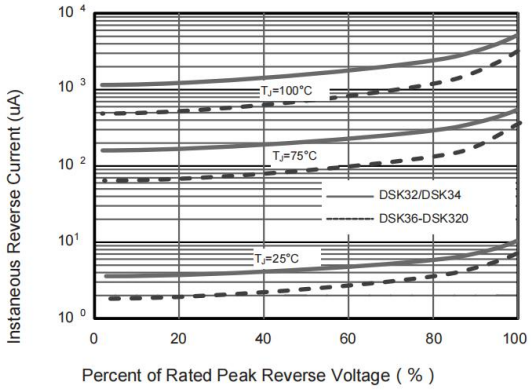


Fig.3 Typical Forward Characteristic

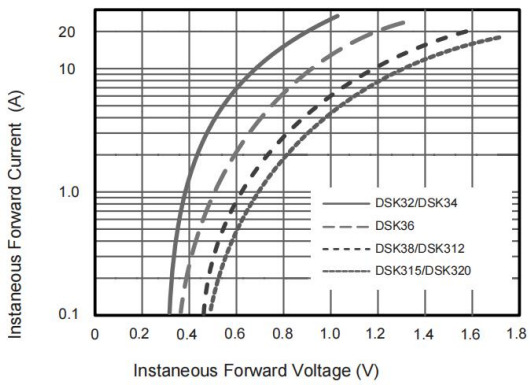


Fig.4 Typical Junction Capacitance

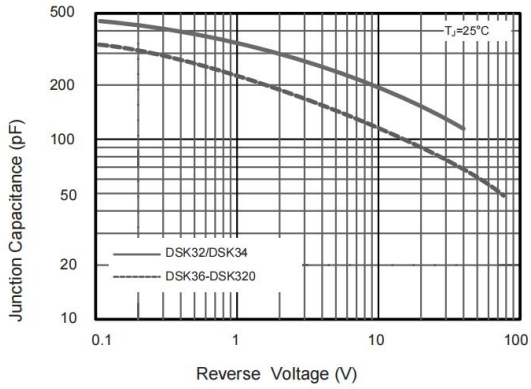


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

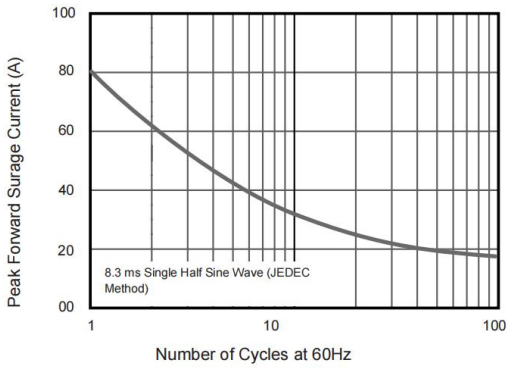
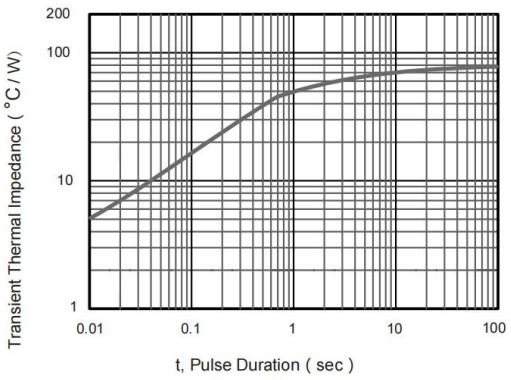
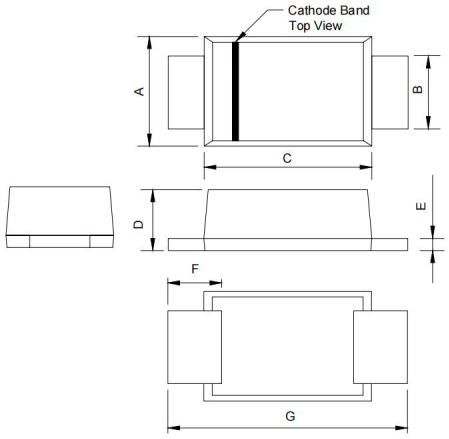


Fig.6- Typical Transient Thermal Impedance



5 Package Outline Dimensions



Symbol	Millimeters	
	Min	Max
A	1.70	1.90
B	0.80	1.10
C	2.70	2.90
D	1.00	1.30
E	0.10	0.25
F	0.70	0.90
G	3.60	3.90

6 Ordering Information

PACKAGE	UNIT WEIGHT (g)	PACKAGING	REEL (pcs)
SOD-123FL	Approximate 0.04	Reel	3000

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