Schottky 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

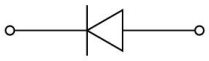
REVERSE VOLTAGE
20-100V
FORWARD CURRENT
3Ampere

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	DSK33	DSK34	DSK35	DSK36	DSK38	DSK39	DSK310	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	90	100	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	90	100	V
Maximum Average Forward Rectified Current at T_A=75℃	$I_{F(AV)}$	3.0								A
Non-Repetitive Peak forward surge current 8.3 ms single half sine-wave super imposed on rated load (JEDEC Method)	I_{FSM}	100.0								A
Operating Temperature Range	T_J	-55 to +150								℃
Storage Temperature Range	T_{STG}	-55 to +150								℃
Power Dissipation	P_D	2.27								W
Thermal Resistance Junction to Ambient(Note 1)	$R_{\theta JA}$	55.0								°C/W
Thermal Resistance Junction to Lead	$R_{\theta JL}$	17.0								

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

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

PARAMETER		SYMBOL	DSK32	DSK33	DSK34	DSK35	DSK36	DSK38	DSK39	DSK310	UNIT
Maximum instantaneous Forward Voltage at 3.0A DC		V_F	0.55			0.75		0.85			V
Reverse Current at Rated DC Blocking Voltage	Ta=25℃	I_R	0.5								mA
	Ta=100℃		20			10					

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

Figure 1. Forward Current Derating Curve

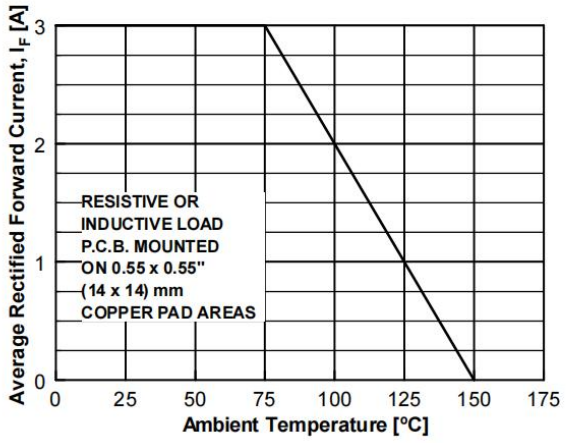


Figure 2. Non-Repetitive Surge Current

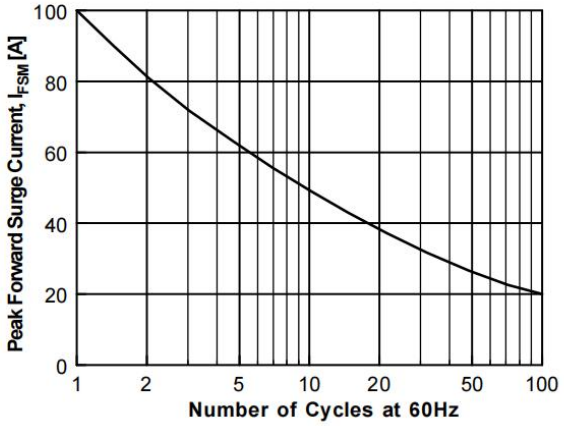


Figure 3. Forward Voltage Characteristics

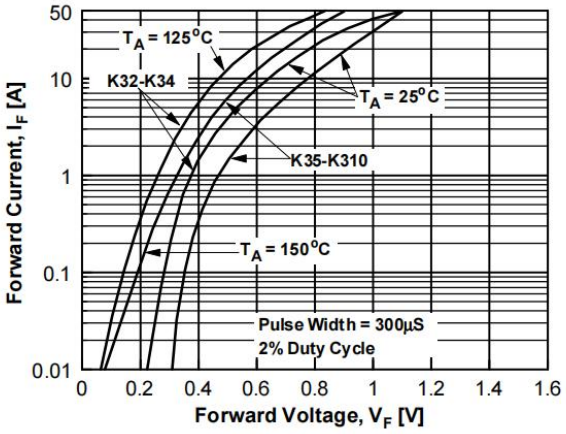


Figure 4. Reverse Current vs Reverse Voltage

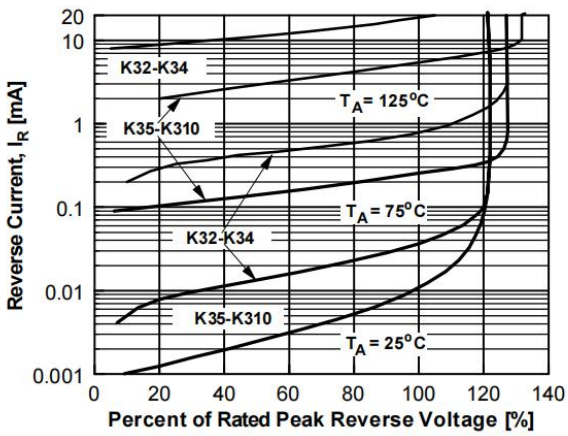


Figure 5. Total Capacitance

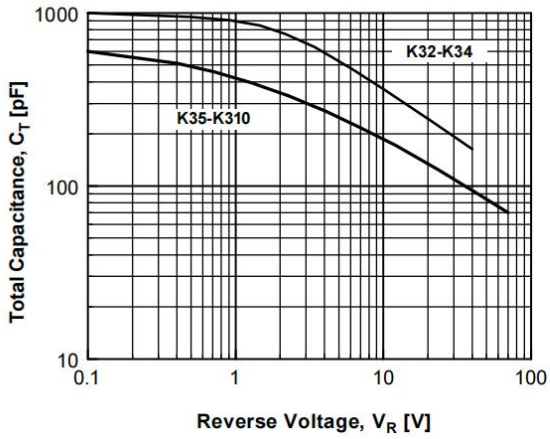
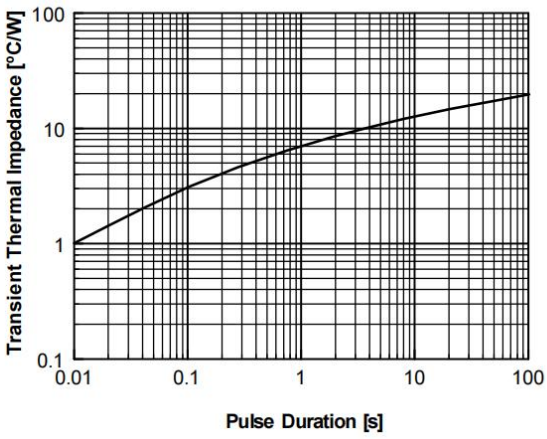
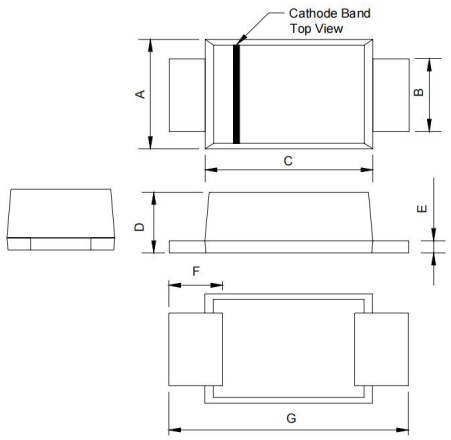


Figure 6. Thermal Impedance Characteristics



5 Package Outline Dimensions



Symbol	Millimeters	
	Min	Max
A	1.70	1.90
B	0.60	1.00
C	2.70	2.90
D	1.15	1.45
E	0.10	0.30
F	0.35	0.85
G	3.50	3.90

6 Ordering Information

PACKAGE	UNIT WEIGHT (g)	REEL (pcs)	CARTON (pcs)
SOD-123FL	Approximate 0.04	3000	180000

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