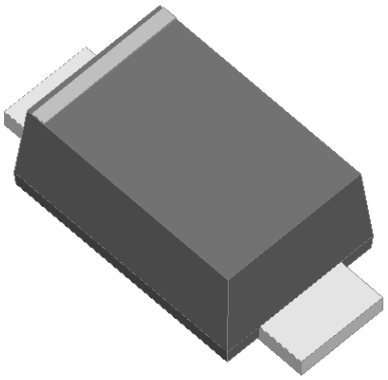
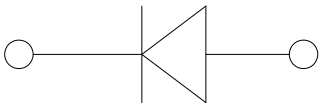
Surface Mount Schottky Rectifier





Features

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

Typical Applications

For use in low voltage high frequency inverters, freewheeling, DC/DC converters, and polarity protection applications.

Mechanical Date

- **Package**: SOD-123FL
  Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

■Maximum Ratings (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SS3020FL	SS3030FL	SS3040FL	SS3050FL	SS3060FL	SS3080FL	SS30100FL	SS30150FL	SS30200FL
Device marking code			K32	K33	K34	K35	K36	K38	K3A	K3B	K3D
Repetitive peak reverse voltage	V_{RRM}	V	20	30	40	50	60	80	100	150	200
Average rectified output current @60Hz sine wave, Resistance load, Ta (FIG.1)	I_O	A	3.0								
Surge(non-repetitive)forward current @60Hz half-sine wave,1 cycle, Tj=25℃	I_{FSM}	A	65								
Storage temperature	Tstg	℃	-55 ~+150								
Junction temperature	Tj	℃	-55 ~+125			-55 ~+150					
Typical Junction Capacitance measured at 1MHz and Applied on 4.0VD.C	Cj	pF	165								

■Electrical Characteristics (Ta=25℃ Unless otherwise specified)

PARAMETER		UNIT	TEST CONDITIONS	K32	K33	K34	K35	K36	K38	K3A	K3B	K3D
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=3.0A	0.5			0.7		0.85		0.9	
Maximum DC reverse current at rated DC blocking voltage per diode @ VRM=VRRM	I_{RRM}	mA	Ta=25℃	0.5					0.1			
			Ta=100℃	10					5			

■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER		UNIT	K32	K33	K34	K35	K36	K38	K3A	K3B	K3D
Thermal Resistance	RθJ-A	℃/W	70 1)								
	RθJ-L		25 1)								

Note：

(1) Thermal resistance between junction and ambient and between junction and lead mounted on P.C.B with 3mm*3mm copper pad areas.

■ Characteristics (Typical)

FIG1:Io-TL Curve

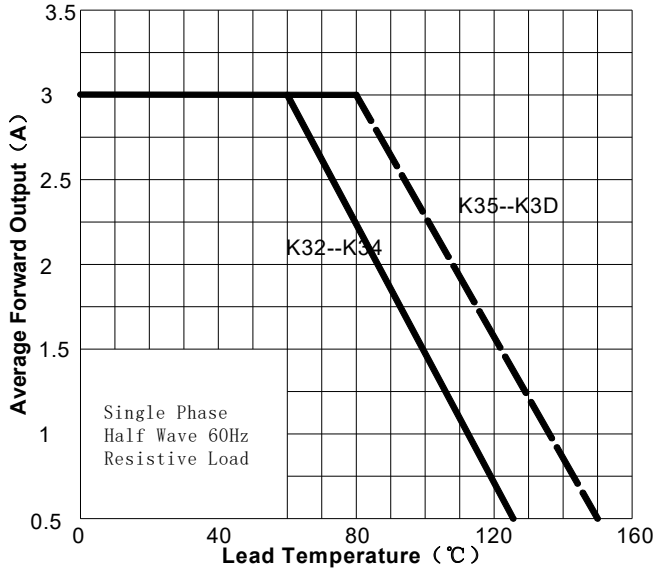


FIG2: Surge Forward Current Capability

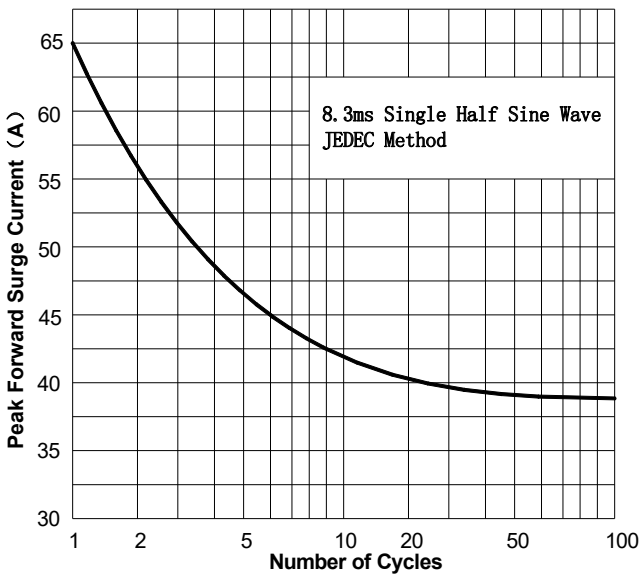


FIG3: Forward Voltage

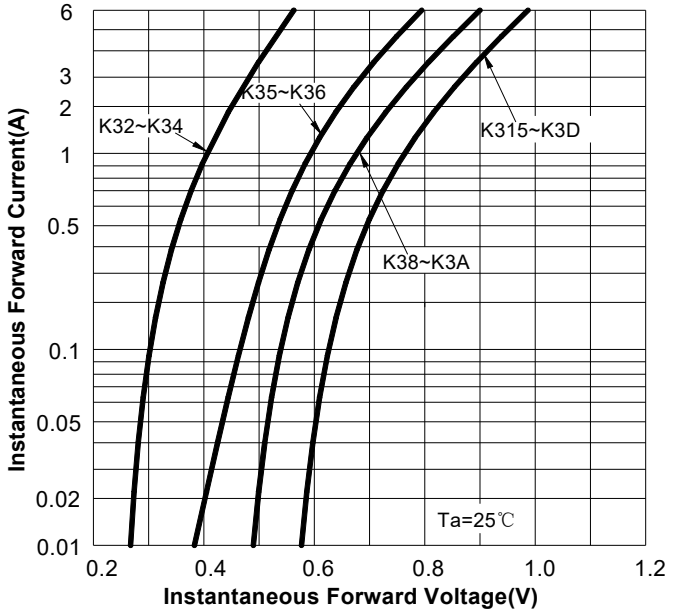
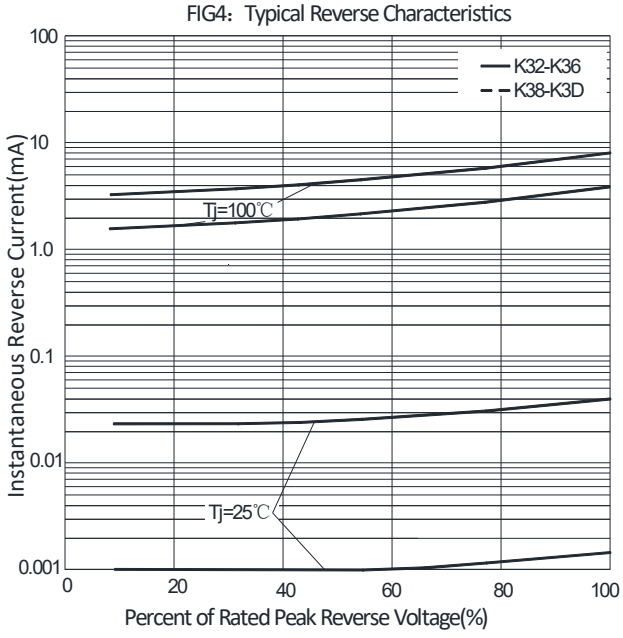
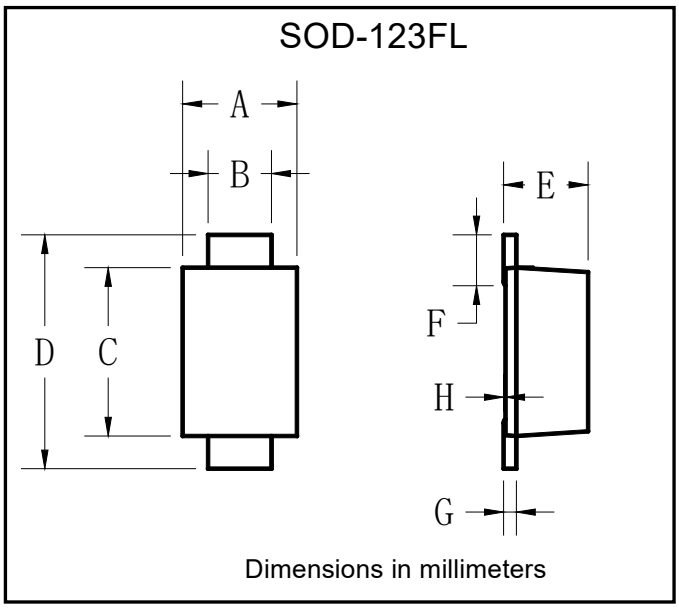


FIG4：Typical Reverse Characteristics

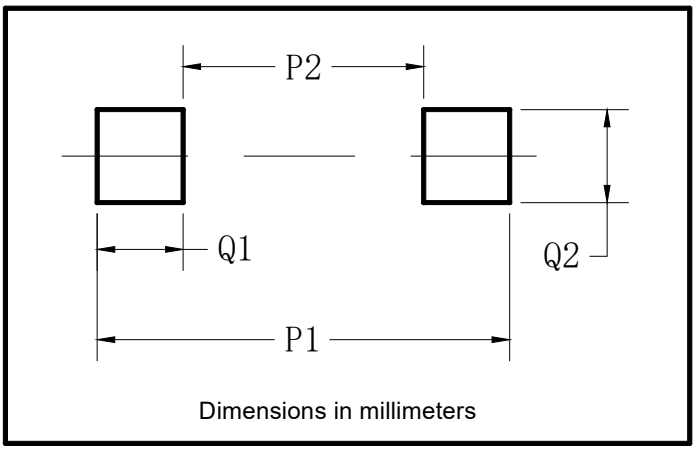


■ Outline Dimensions



SOD-123FL		
Dim	Min	Max
A	1.60	1.90
B	0.90	1.10
C	2.55	2.85
D	3.60	3.90
E	1.00	1.20
F	0.40	0.90
G	0.10	0.25
H	0.02	0.05

■ Suggested pad layout



SOD-123FL	
Dim	Millimeters
P1	3.90
P2	1.90
Q1	1.00
Q2	1.50