

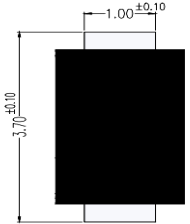
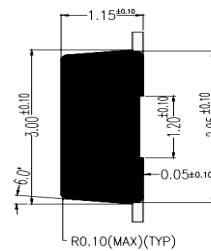
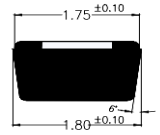
Surface Mount Schottky Rectifier

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

SOD-123FL

Unit : inch(mm)



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 ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	K12	K13	K14	K15	K16	K18	K110	K115	K120
Repetitive peak reverse voltage	VRRM	V	20	30	40	50	60	80	100	150	200
Average rectified output current @60Hz sine wave, Resistance load, T_a (FIG.1)	IO	A	1.0								
Surge(non-repetitive)forward current @60Hz half-sine wave,1 cycle, $T_j=25^\circ\text{C}$	IFSM	A	30								
Storage temperature	Tstg	°C	-55 ~+150								
Junction temperature	T_j	°C	-55 ~+150						-55 ~+175		

■Electrical Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	K12	K13	K14	K15	K16	K18	K110	K115	K120
Maximum instantaneous forward voltage drop per diode	V _F	V	IFM=1.0A	0.55			0.70		0.85		0.95	
Maximum DC reverse current at rated DC blocking voltage per diode @ VRM=VRRM	IRRM	mA	$T_a=25^\circ\text{C}$	0.50						0.10		
			$T_a=100^\circ\text{C}$	10						5		

■ Thermal Characteristics ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	K12	K13	K14	K15	K16	K18	K110	K115	K120
Thermal Resistance	R θ J-A	$^{\circ}\text{C}/\text{W}$	70 ¹⁾								
	R θ J-L		20 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

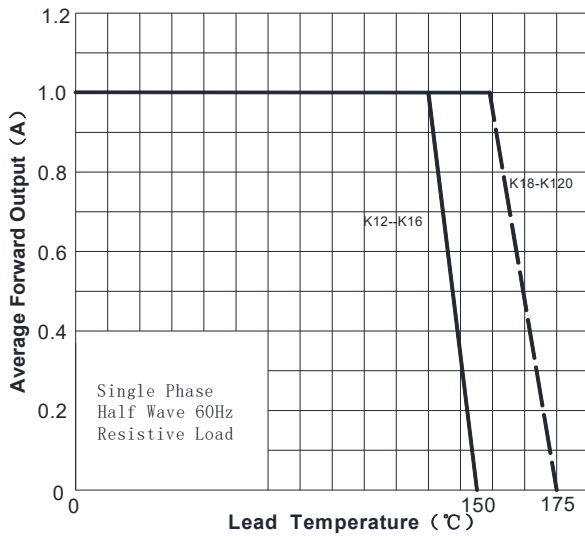


FIG2: Surge Forward Current Capability

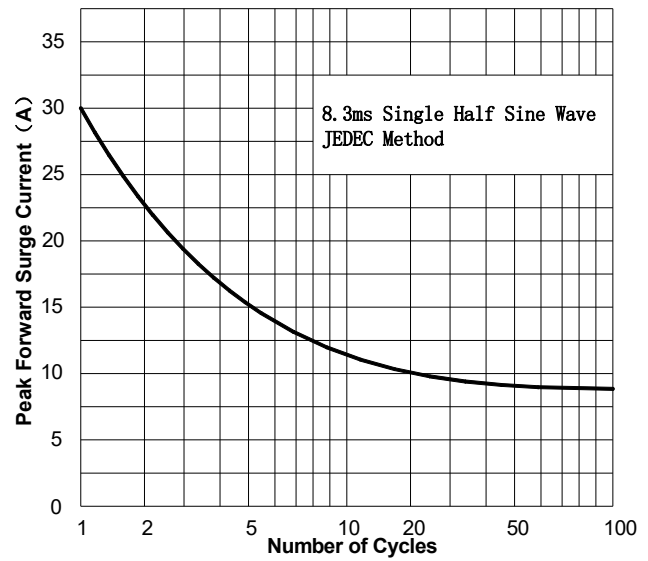


FIG3: Forward Voltage

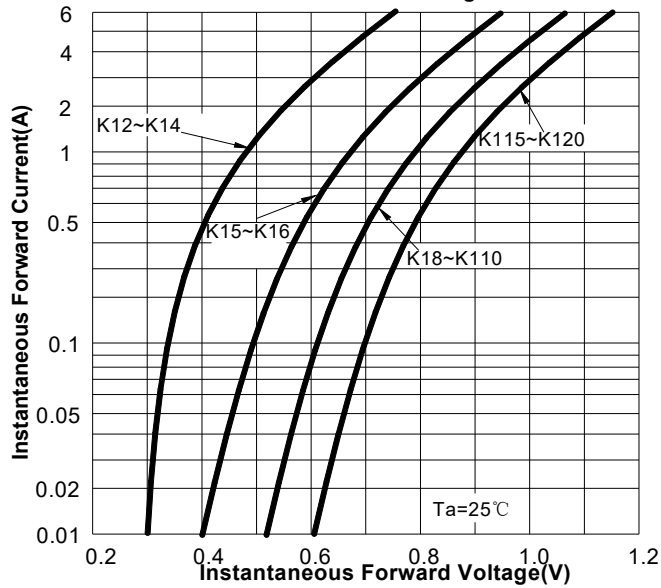


FIG4: Typical Reverse Characteristics

