CHINA BASE INTERNATIONAL

SOD-123-FL
K12-K120

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K12（S12） THRU K120（S120）

Surface Mount General Purpose Rectifier

Essential information; basic information

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 Data

- Package: SOD-123FL

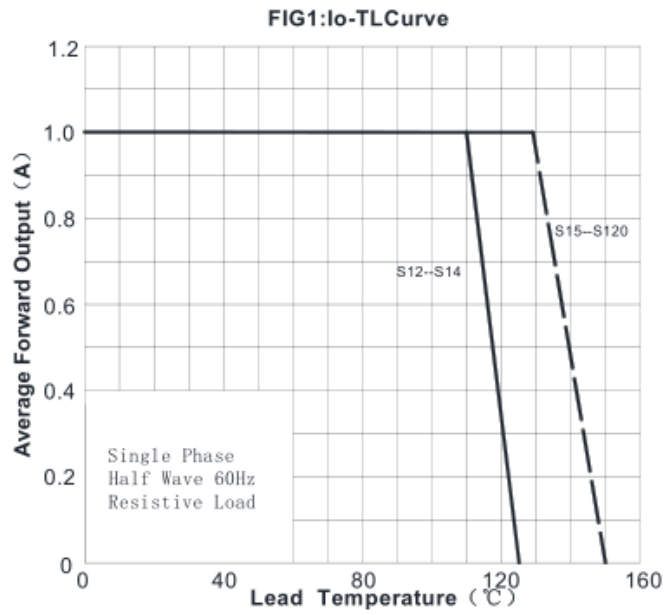
Molding compound meets UL 94 V-0 flammabilityrating, RoHS-compliant

- Terminals: Tin plated leads, solderable perJ-STD-002 and JESD22-B102
- Polarity: Cathode line denotes the cathode end

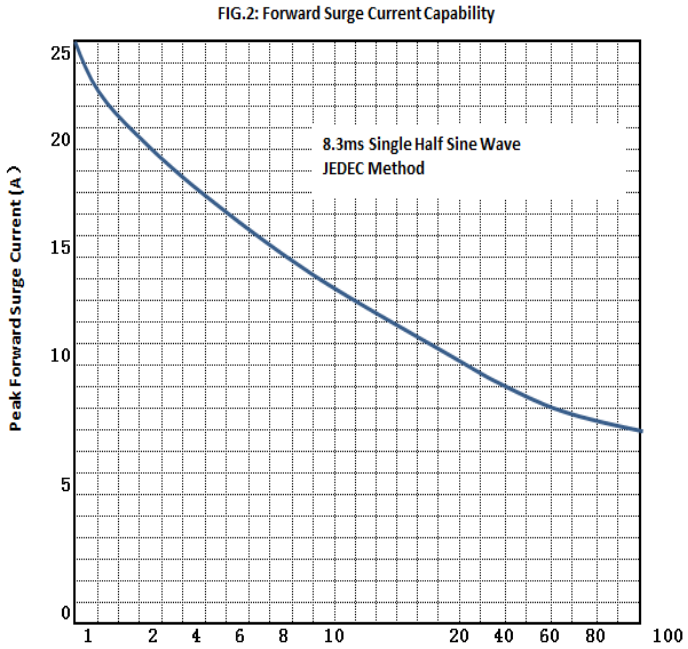
Maximum Ratings (Ta=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	S12	S14	S16	S18	S110	S115	S120
Alternate Name			**K12**	**K14**	**K16**	**K18**	**K110**	**K115**	**K120**
Maximum Repetitive peak reverse voltage	VRRM	V	20	40	60	80	100	150	200
Average rectified output current@60Hz sine wave, resistance load, TL (Fig.1)	IO	A	1.0						
Forward Surge Current (Non-repetitive)@60Hz Half-sine wave,1 cycle, Tj=25℃	IFSM	A	25						
Storage temperature	Tstg	℃	-55 ~ +125						
Junction temperature	Tj	℃	-55 ~ +125		-55 ~ +150				
Maximum instantaneous forward voltage drop per diode	VF （IFM=1.0A）	V	0.6		0.7	0.85		0.9	
Maximum DC reverse current at rated DC blocking voltage per diode @VRM=VRRM	IR（Tj =25℃）	mA	0.5			0.1			
	IR（Tj =100℃）		10			5			

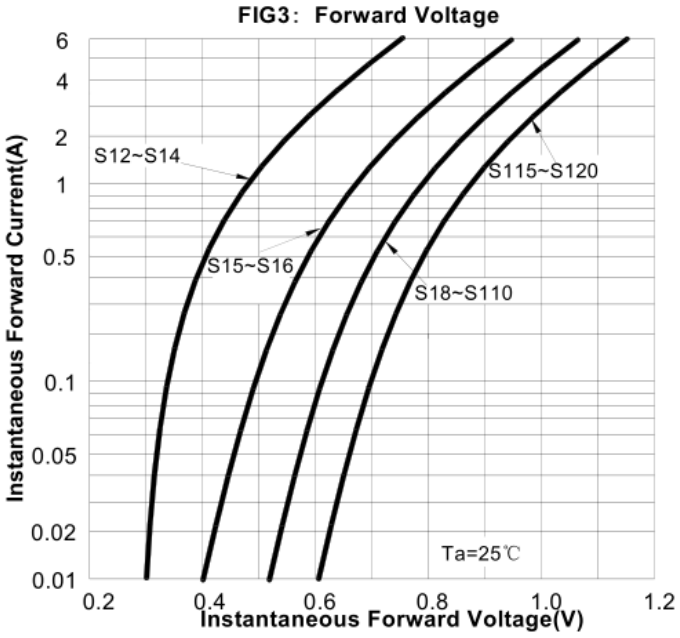
Characteristics (Typical)



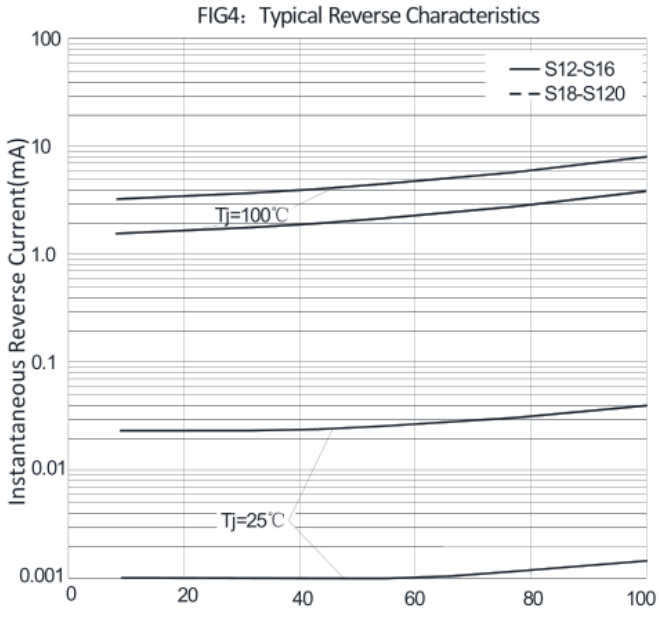
Lead Temperature (℃)



Number of Cycles



Instantaneous Forward Voltage(V)

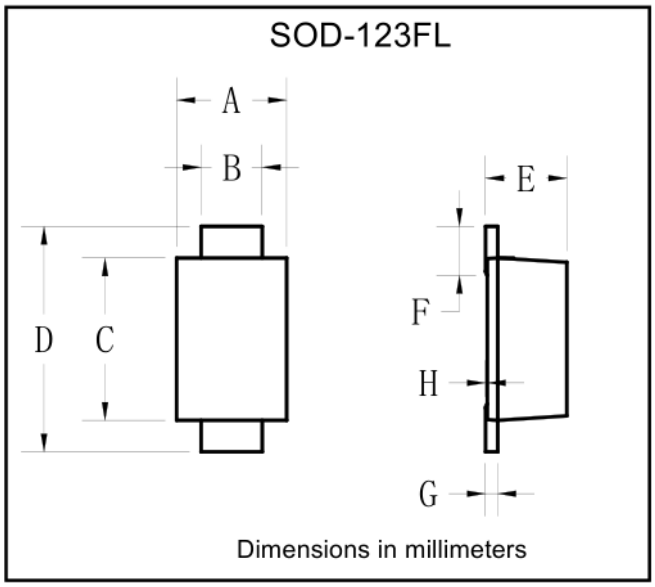


Percent of Rated Peak Reverse Voltage (%)

Ordering Information (Example)

type specification	manner of packin	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
S12-S120 K12-K120 （SOD-123FL）	T/B	3000	24000	240000	7” reel
		10000	30000	300000	13” reel

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

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