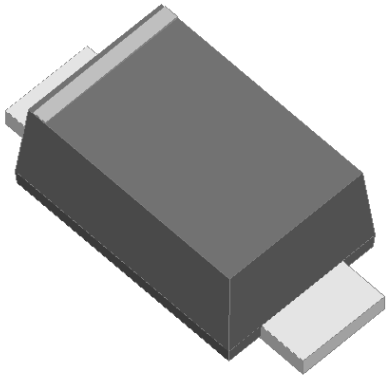
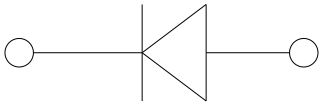
Surface Mount Schottky Rectifier





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 (Tj=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	SL14	SL16	SL110
Device marking code			**SL14**	**SL16**	**SL110**
Repetitive peak reverse voltage	V_{RRM}	V	40	60	100
Average rectified output current @60Hz sine wave, Resistance load, TL (FIG.1)	I_O	A	1.0		
Surge(non-repetitive)forward current @ 60Hz half-sine wave,1 cycle, Tj=25℃	I_{FSM}	A	28		
Storage temperature	T_{stg}	℃	-55 ~+150		
Junction temperature	T_j	℃	-55 ~+150		

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	SL14	SL16	SL110
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=1.0A	0.45	0.55	0.6
Maximum DC reverse current at rated DC blocking voltage per diode @ VRM=VRRM	I_{RRM}	mA	Tj=25℃	0.50		
			Tj=100℃	10		

Note1:Pulse test:300uS pulse widh,1% duty cycle

Note2:Pulse test:pulse widh 40mS

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

PARAMETER	SYMBOL	UNIT	SL14	SL16	SL110
Thermal Resistance	RθJ-A	℃/W	70[1)]		
	RθJ-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

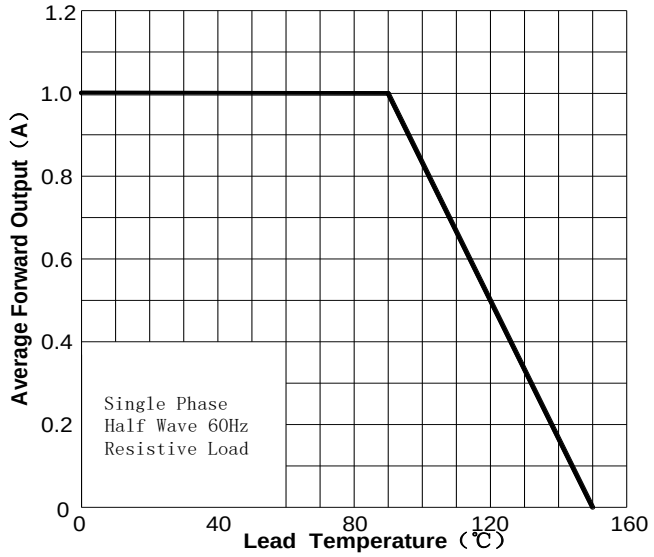


FIG2: Surge Forward Current Capability

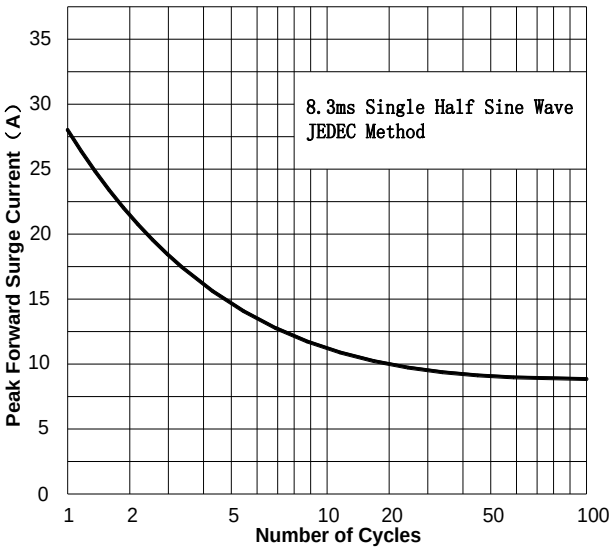


FIG3: Forward Voltage

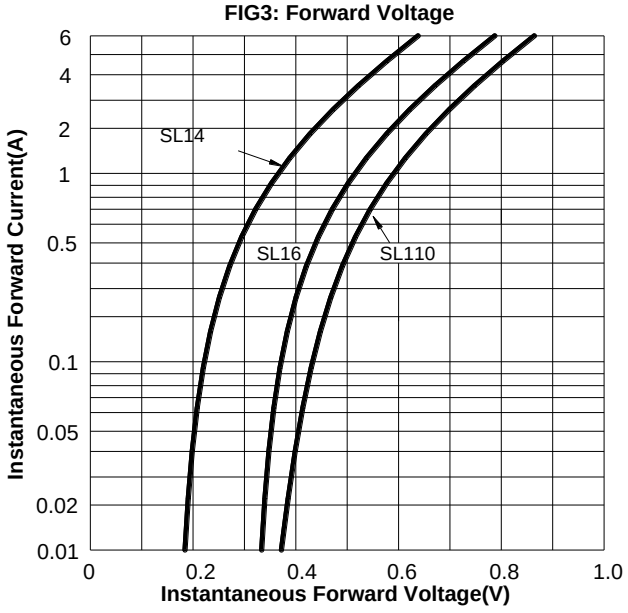
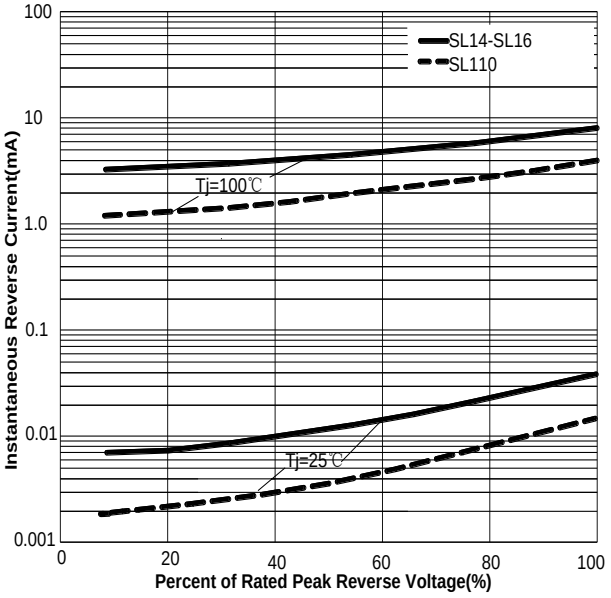


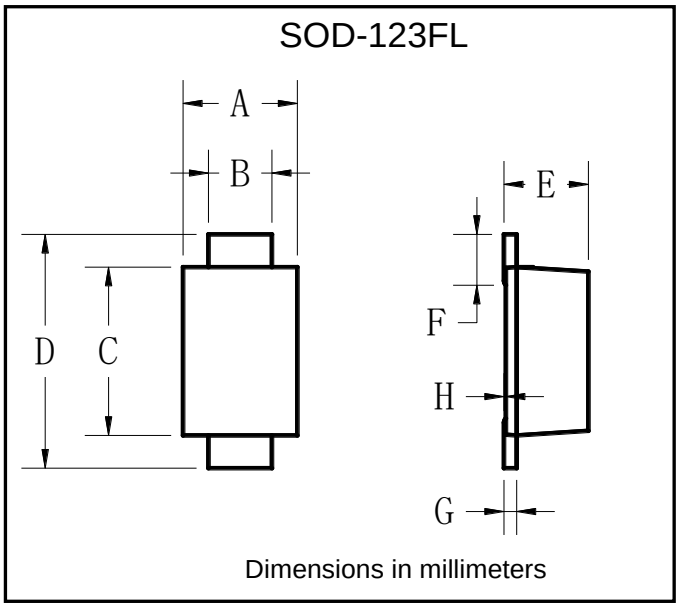
FIG4: Typical Reverse Characteristics



■Ordering Information (Example)

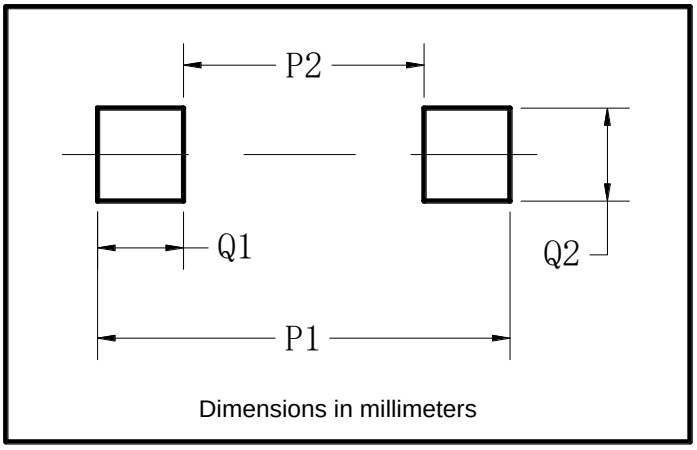
PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SL14 THRU SL110	F1	Approximate 0.0169	3000	30000	120000	7” reel
SL14 THRU SL110	F2	Approximate 0.0169	2500	25000	100000	7” reel
SL14 THRU SL110	F3	Approximate 0.0169	10000	30000	210000	13” reel
SL14 THRU SL110	F4	Approximate 0.0169	3000	27000	108000	7” reel
SL14 THRU SL110	F5	Approximate 0.0169	10000	20000	160000	13” reel
SL14 THRU SL110	F6	Approximate 0.0169	3000	12000	60000	7” 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	0.05

■ Suggested pad layout



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

Notice

All products, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise. Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in STARSEA's terms and conditions of sale for such products, STARSEA assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of STARSEA products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.