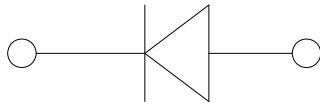


## Surface Mount Schottky Rectifier



### 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 Data

- **Package:** DO-214AC (SMA)  
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<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SS								
			12A	13A	14A	15A	16A	18A	110A	115A	120A
Device marking code			SS								
Repetitive peak reverse voltage	V <sub>RRM</sub>	V	20	30	40	50	60	80	100	150	200
Average rectified output current @60Hz sine wave, resistance load, TL (FIG.1)	I <sub>O</sub>	A	1.0								
Surge(non-repetitive)forward current @60Hz half-sine wave,1 cycle, T <sub>a</sub> =25°C	I <sub>FSM</sub>	A	30								
Storage temperature	T <sub>stg</sub>	°C	-55 ~+150								
Junction temperature	T <sub>j</sub>	°C	-55~+125			-55 ~+150					

### ■Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	SS							
				12A	13A	14A	15A	16A	18A	110A	115A
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	I <sub>FM</sub> =1.0A	0.50		0.70		0.85		0.90	
Maximum DC reverse current at rated DC blocking voltage per diode@ V <sub>RM</sub> =V <sub>RRM</sub>	I <sub>RRM</sub>	mA	T <sub>a</sub> =25°C	0.50				0.10			
			T <sub>a</sub> =100°C	10				5.0			

### ■Thermal Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SS								
			12A	13A	14A	15A	16A	18A	110A	115A	120A
Thermal resistance	R <sub>θJ-A</sub>	°C/W	65 <sup>1)</sup>								
	R <sub>θJ-L</sub>		20 <sup>1)</sup>								

Note

(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas



# SS12A THRU SS120A

## ■ Characteristics (Typical)

FIG1:  $I_o$ -TL Curve

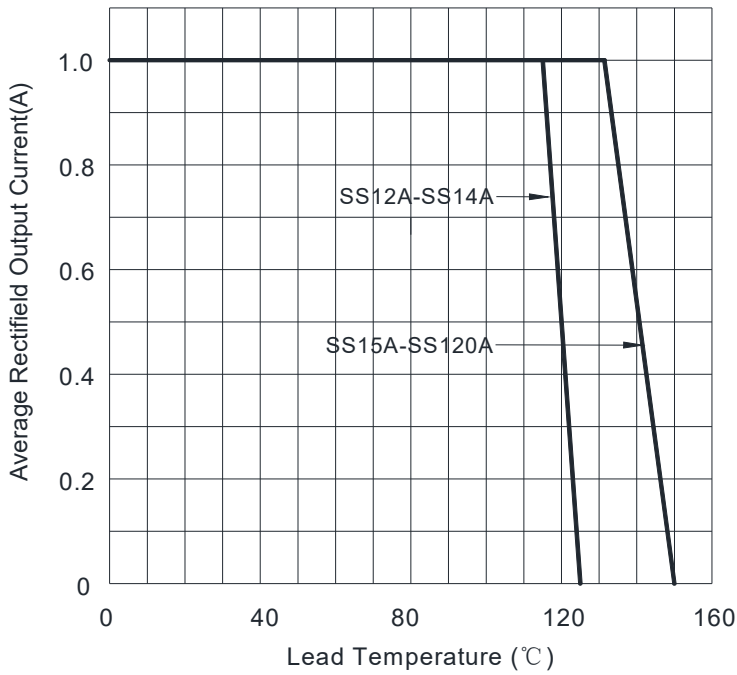


FIG2: Surge Forward Current Capability

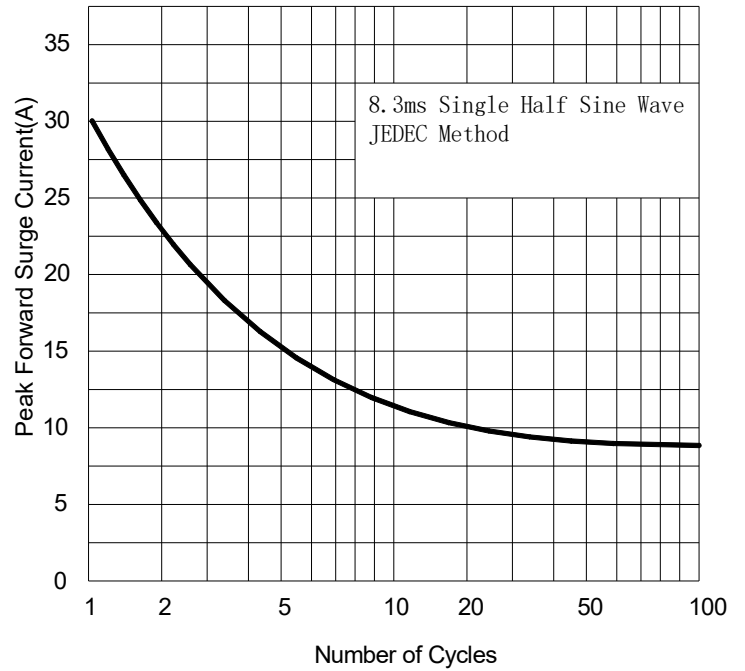


FIG3: TYPICAL FORWARD CHARACTERISTICS

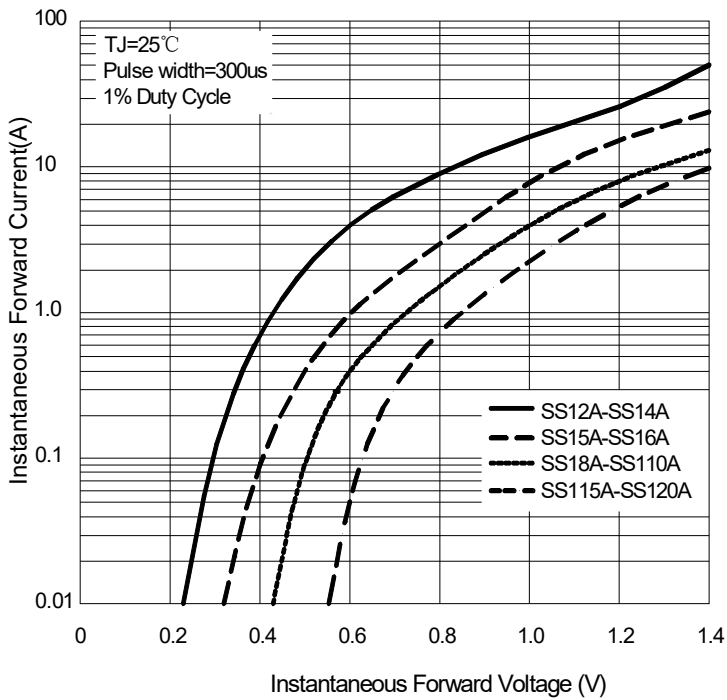
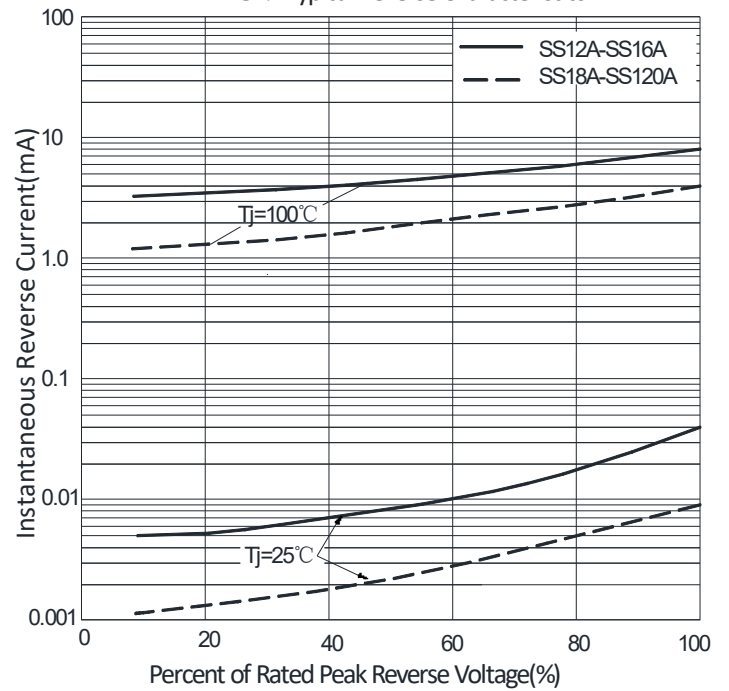


FIG4: Typical Reverse Characteristics



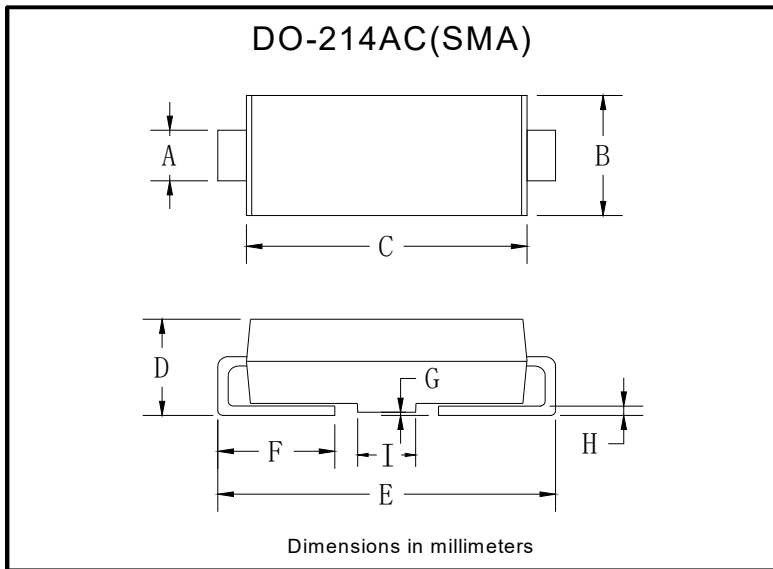


# SS12A THRU SS120A

## Ordering Information (Example)

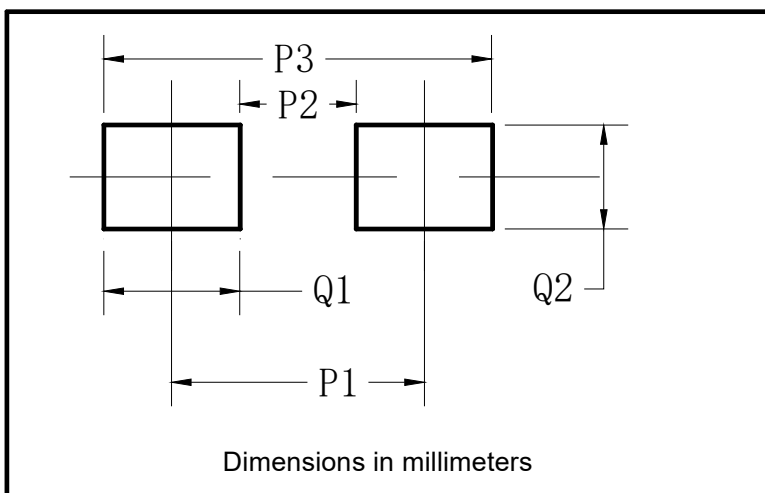
PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SS12A-SS120A	F1	Approximate 0.059	5000	/	80000	13" reel
SS12A-SS120A	F2	Approximate 0.059	7500	/	120000	13" reel
SS12A-SS120A	F3	Approximate 0.059	7500	/	60000	13" reel
SS12A-SS120A	F4	Approximate 0.059	1800	7200	57600	7" reel
SS12A-SS120A	F5	Approximate 0.059	2000	8000	64000	7" reel
SS12A-SS120A	F6	Approximate 0.059	5000	/	100000	13" reel

## Outline Dimensions



DO-214AC(SMA)		
Dim	Min	Max
A	1.25	1.58
B	2.40	2.83
C	4.00	4.75
D	1.90	2.30
E	4.93	5.28
F	0.76	1.41
G	0.05	0.20
H	0.15	0.31
I	1.70	2.10

## Suggested Pad Layout



DO-214AC(SMA)	
Dim	Millimeters
P1	4.00
P2	1.50
P3	6.50
Q1	2.50
Q2	1.70



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