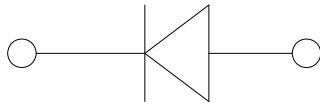


Surface Mount Schottky Rectifier



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_a=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 _{RRM}	V	20	30	40	50	60	80	100	150	200
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, T _a =25°C	I _{FSM}	A	30								
Storage temperature	T _{stg}	°C	-55 ~+150								
Junction temperature	T _j	°C	-55~+125			-55 ~+150					

■Electrical Characteristics (T_a=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 _F	V	I _{FM} =1.0A	0.50		0.70		0.85		0.90	
Maximum DC reverse current at rated DC blocking voltage per diode@ V _{RM} =V _{RRM}	I _{RRM}	mA	T _a =25°C	0.50				0.10			
			T _a =100°C	10				5.0			

■Thermal Characteristics (T_a=25°C Unless otherwise specified)

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

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

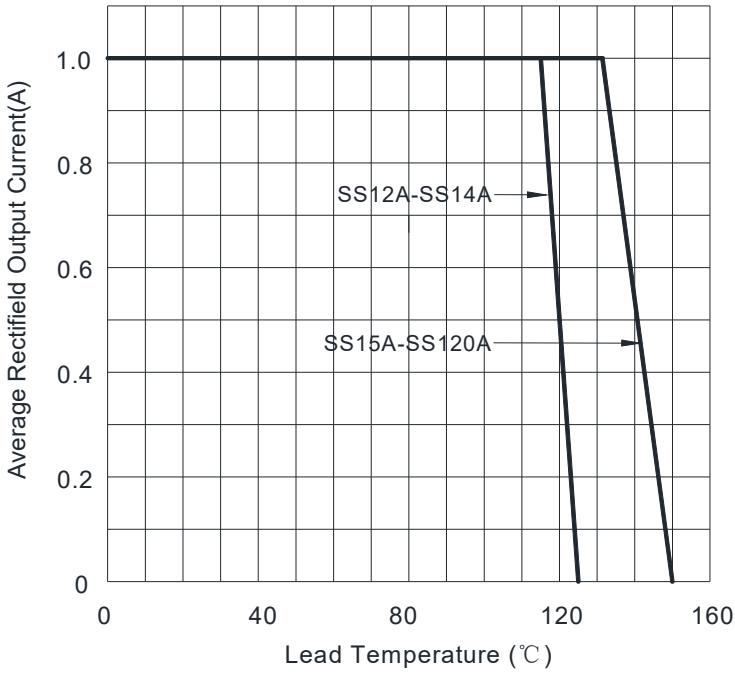


FIG2: Surge Forward Current Capability

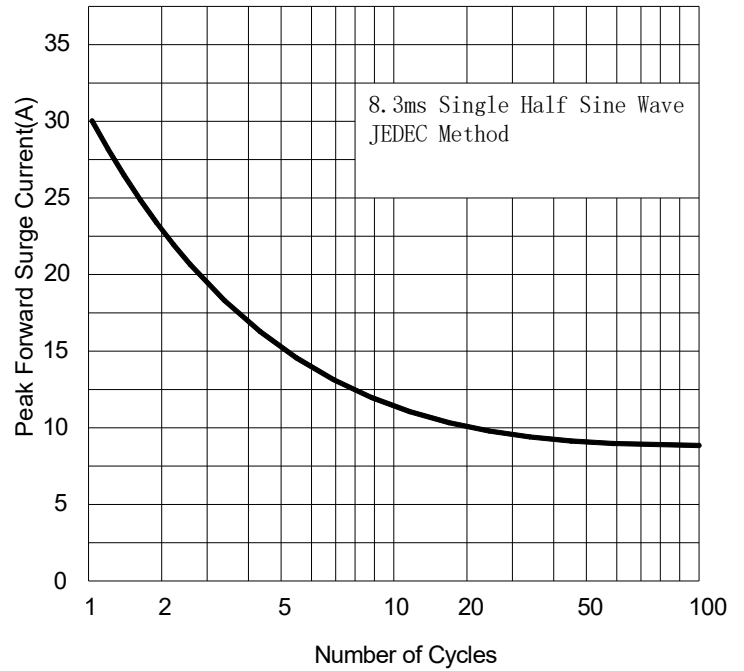


FIG3: TYPICAL FORWARD CHARACTERISTICS

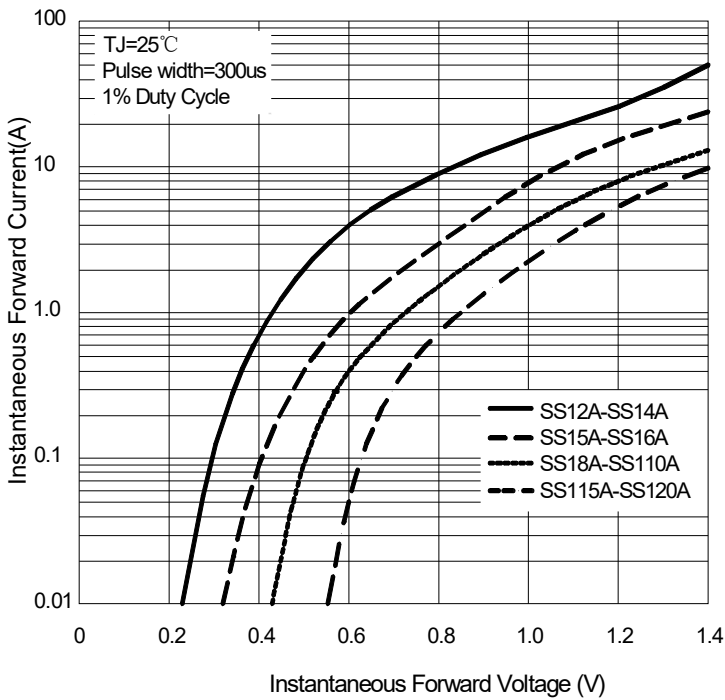
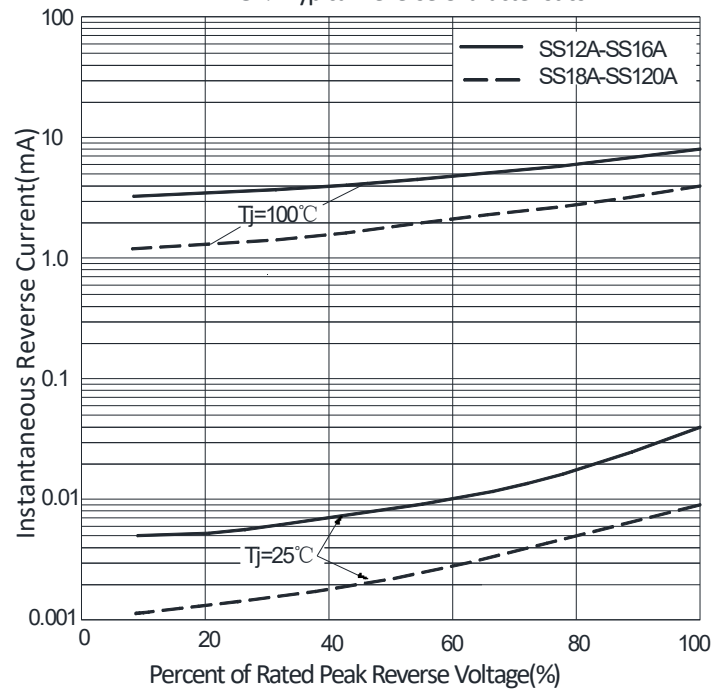


FIG4: Typical Reverse Characteristics



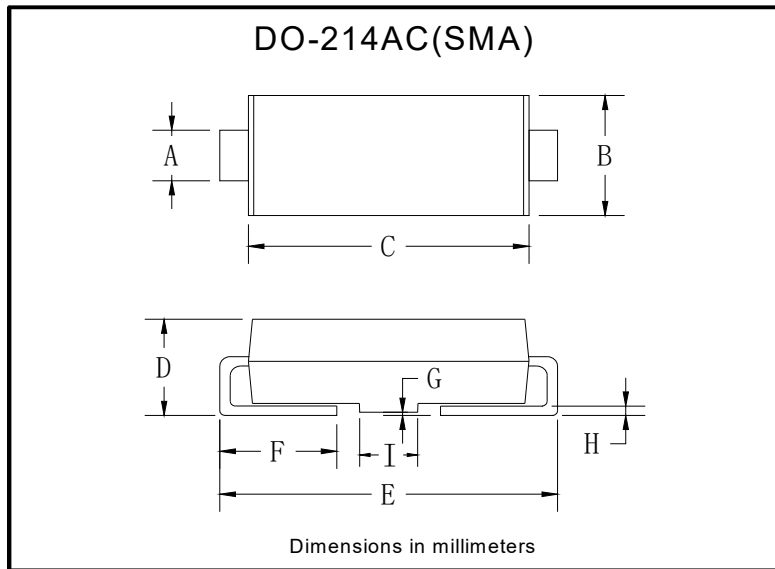


SS12A THRU SS120A

Ordering Information (Example)

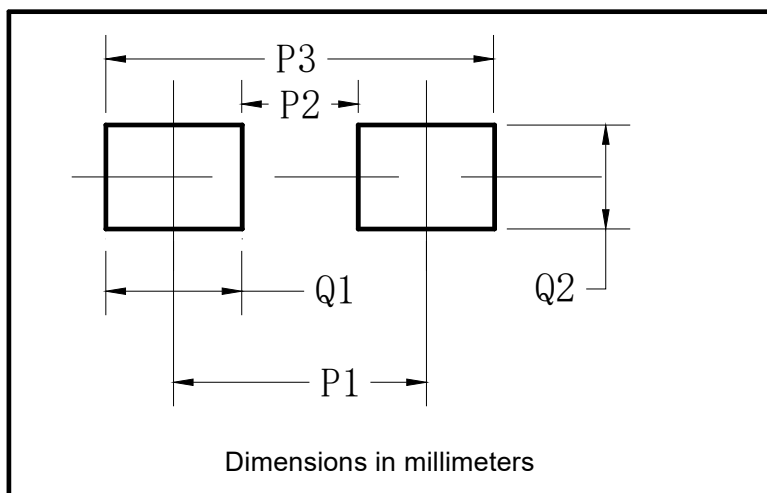
PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SS12A-SS120A	F1	Approximate 0.059	5000	/	80000	13" reel
SS12A-SS120A	F2	Approximate 0.059	7500	/	120000	13" reel
SS12A-SS120A	F3	Approximate 0.059	7500	/	60000	13" reel
SS12A-SS120A	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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