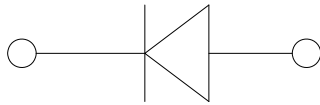
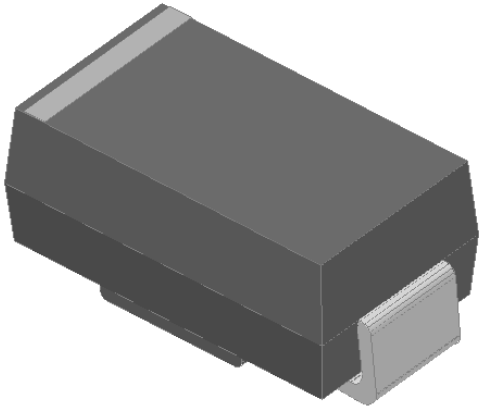


Surface Mount Schottky Rectifier



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 (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SS									
			12A	13A	14A	15A	16A	18A	110A	115A	120A	
Device marking code			SS									
			12A	13A	14A	15A	16A	18A	110A	115A	120A	
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, Ta=25°C	I_{FSM}	A	30									
Typical Junction capacitance @4V,1MHz	C_j	pF	55			40		30		25		
Storage temperature	T_{stg}	°C	-55~+125					-55 ~+175				
Junction temperature	T_j	°C	-55~+125					-55 ~+175				

■Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	SS								
				12A	13A	14A	15A	16A	18A	110A	115A	120A
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	Ta=25°C	0.50				0.10				
			Ta=100°C	10				5.0				

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

Note2:Pulse test:pulse width 40mS



SS12A THRU SS120A

■ 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

■ Characteristics (Typical)

FIG1: I_o-TL Curve

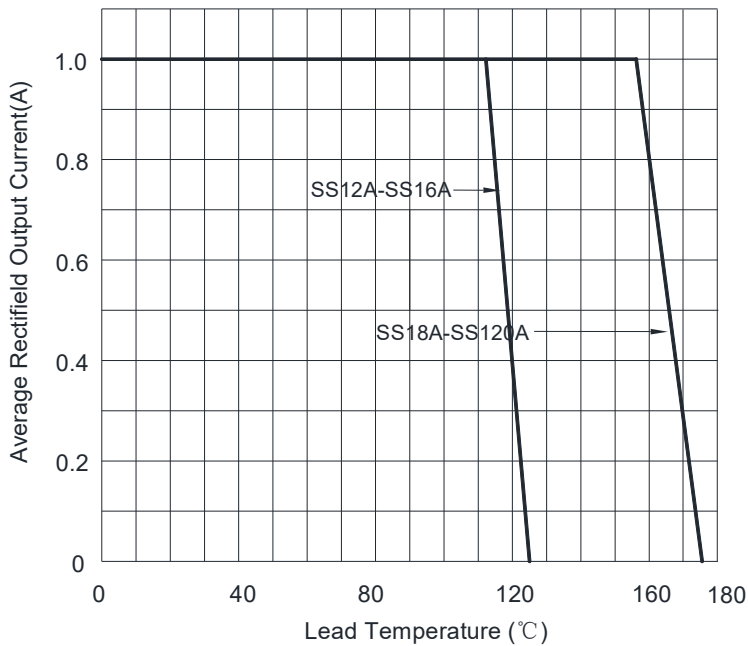


FIG2: Surge Forward Current Capability

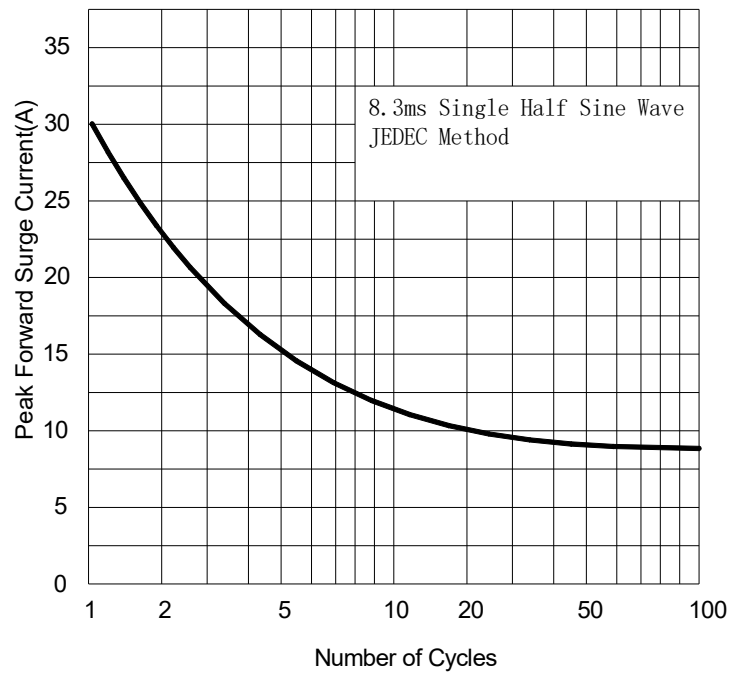


FIG3: TYPICAL FORWARD CHARACTERISTICS

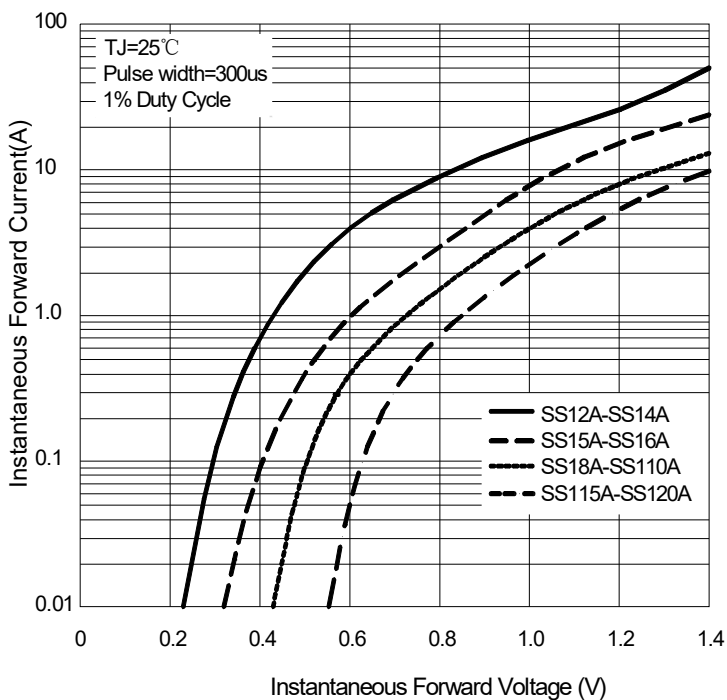
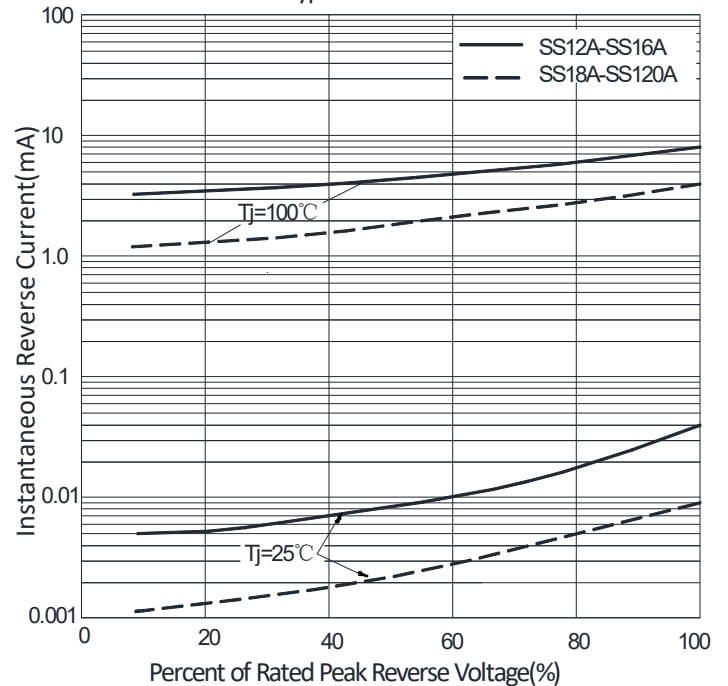


FIG4: Typical Reverse Characteristics



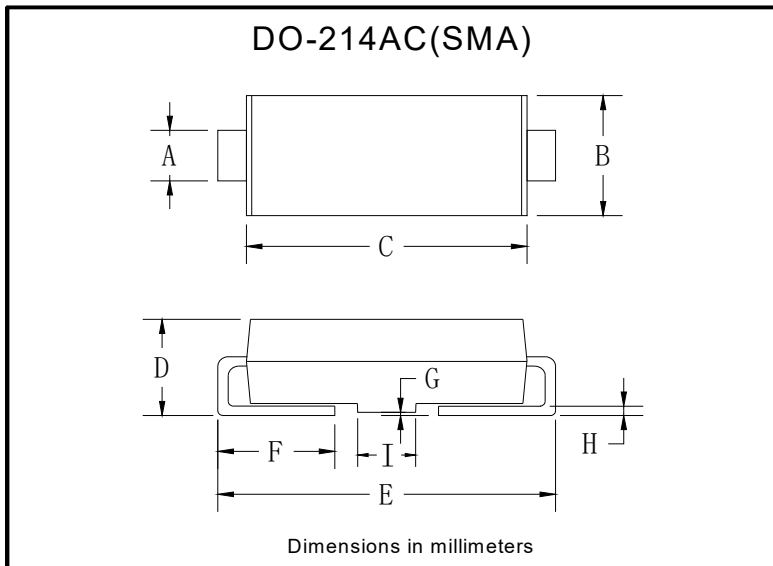


SS12A THRU SS120A

■ Ordering Information (Example)

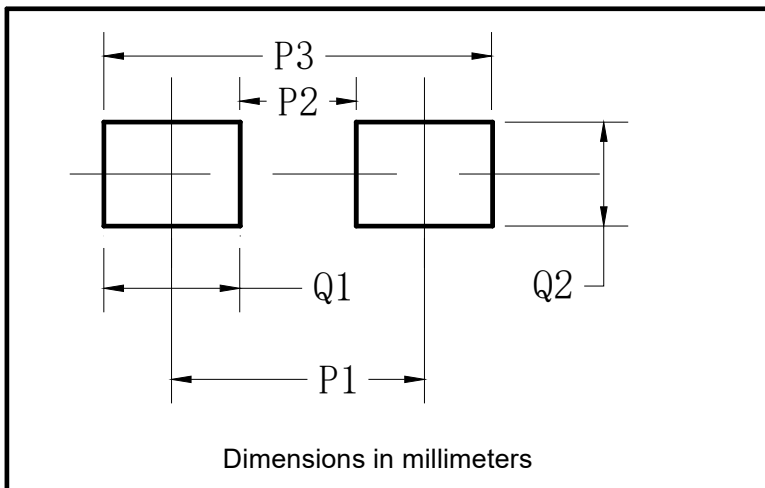
PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SS12A-SS120A	F1	Approximate 0.059	5000	/	80000	13" reel
SS12A-SS120A	F2	Approximate 0.059	7500	/	120000	13" reel
SS12A-SS120A	F3	Approximate 0.059	7500	/	60000	13" reel
SS12A-SS120A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