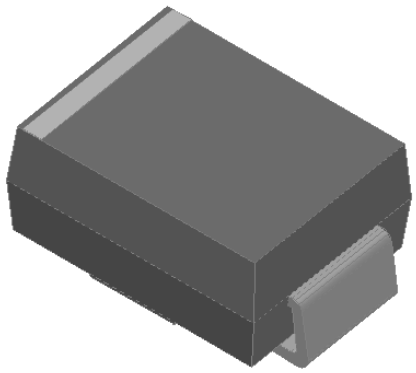
Surface Mount Schottky Rectifier

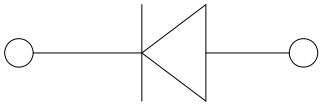


Features

- 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
- Part no. with suffix “Q” means AEC-Q101 qualified

Typical Applications

For use in low voltage high frequency inverters, freewheeling, DC/DC converters, automotive and polarity protection applications.



Mechanical Data

- **Package**: DO-214AA (SMB)
  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℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SS								
			22Q	23Q	24Q	25Q	26Q	28Q	210Q	215Q	220Q
Device marking code			SS								
			22	23	24	25	26	28	210	215	220
Repetitive Peak Reverse Voltage	V_{RRM}	V	20	30	40	50	60	80	100	150	200
Average Rectified Output Current @60Hz Half-sine wave, Resistance load, T_L (Fig.1)	I_O	A	2.0								
Surge(Non-repetitive)Forward Current @ 60Hz Half-sine wave,1 cycle, Ta=25℃	I_{FSM}	A	75								
Junction Temperature	T_J	℃	-55~+125			-55 ~+150					
Storage Temperature	T_{stg}	℃	-55 ~+150								

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	SS								
				22Q	23Q	24Q	25Q	26Q	28Q	210Q	215Q	220Q
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=2.0A	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_J=25℃	0.50					0.10			
			T_J=100℃	10			5		-			
			T_J=125℃	-			-		5			
Typical junction capacitance	C_J	pF	VR=4V,f=1MHz	115			95		60		40	

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

PARAMETER	SYMBOL	UNIT	SS22Q	SS23Q	SS24Q	SS25Q	SS26Q	SS28Q	SS210Q	SS215Q	SS220Q
Thermal resistance	$R_{\theta J-A(1)}$	℃/W	75(1)								
	$R_{\theta J-L(1)}$		17(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)

Fig.1:I_O-T_L Curve

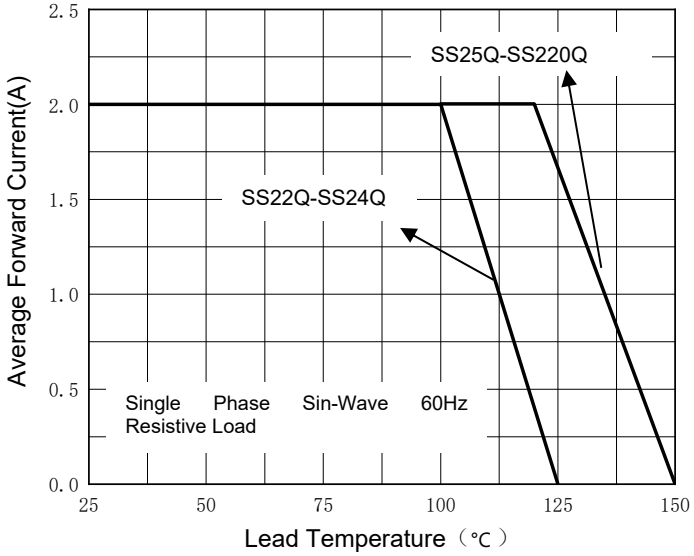


Fig.2:Surge Forward Current Capability

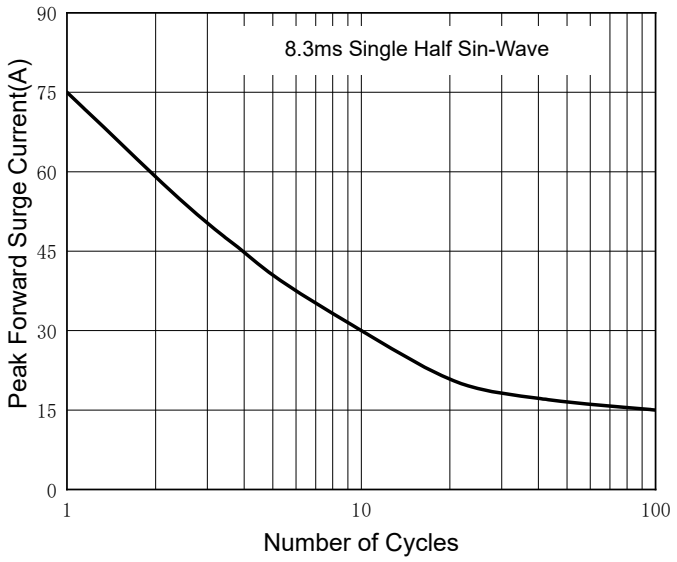


Fig.3:Forward Voltage

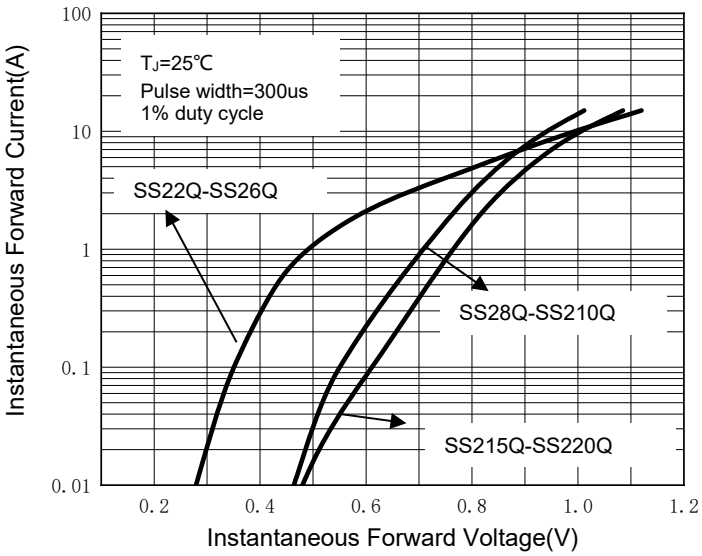
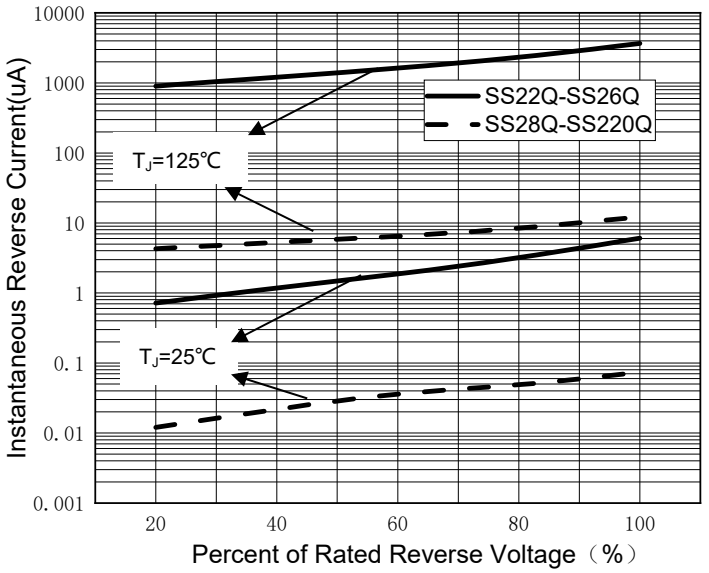


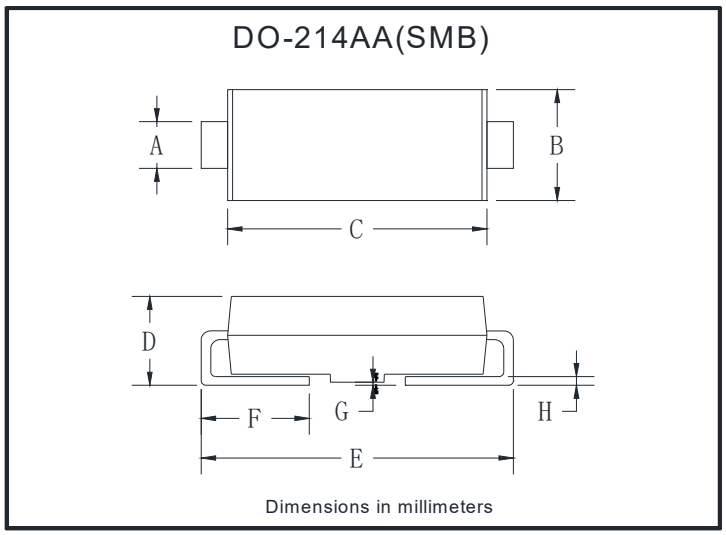
Fig.4:Typical Reverse Characteristics



■Ordering Information (Example)

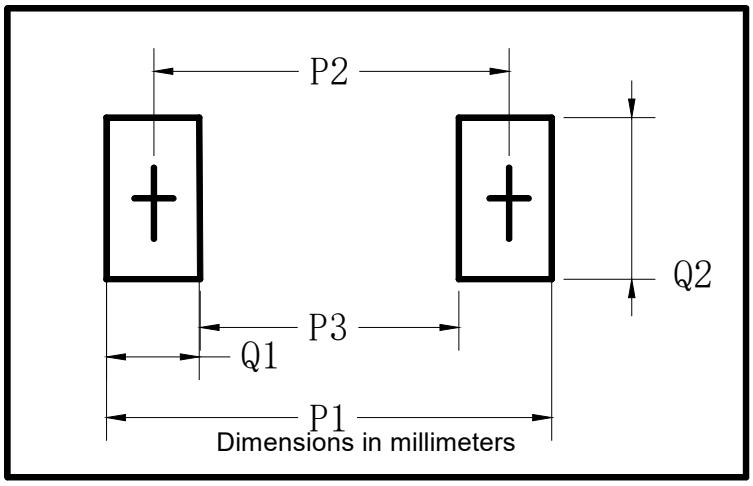
PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SS22Q-SS220Q	F1	Approximate 0.1003	3000	6000	48000	13” reel

■ Outline Dimensions



DO-214AA(SMB)		
Dim	Min	Max
A	1.85	2.15
B	3.30	3.94
C	4.25	4.75
D	1.99	2.61
E	5.21	5.59
F	0.90	1.41
G	0.10	0.20
H	0.15	0.31

■ Suggested pad layout



DO-214AA(SMB)	
Dim	Millimeters
P1	6.8
P2	4.3
P3	1.8
Q1	2.5
Q2	2.3

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