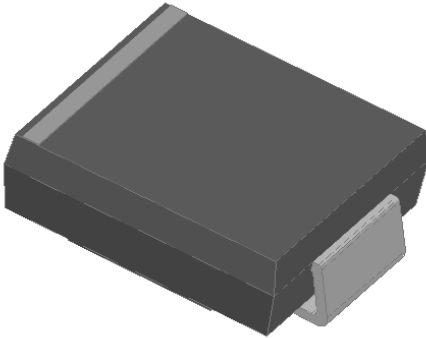


Surface Mount Schottky Rectifier

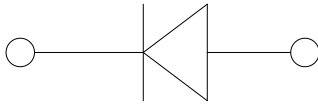


Features

- Guardring for overvoltage protection
- Low power losses
- Extremely fast switching
- High forward surge capability
- High frequency operation
- 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-214AB (SMC)
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Color band denotes the cathode end

■Maximum Ratings (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SS32Q	SS34Q	SS36Q	SS310Q	SS315Q	SS320Q
Device marking code			SS32	SS34	SS36	SS310	SS315	SS320
Repetitive Peak Reverse Voltage	V _{RRM}	V	20	40	60	100	150	200
Average Rectified Output Current @60Hz sine wave, Resistance load, T _L (Fig.1)	I _O	A	3.0					
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, T _a =25°C	I _{FSM}	A	70					
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	SS32Q	SS34Q	SS36Q	SS310Q	SS315Q	SS320Q
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =3.0A	0.50		0.70	0.85	0.90	
Maximum DC reverse current at rated DC blocking voltage per diode	I _R	mA	T _a =25°C	0.2			0.1		
			T _a =100°C	20			5.0		
Typical junction capacitance	C _J	pF	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C.	148		134	96	62	



SS32Q THRU SS320Q

■ Thermal Characteristics ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	SS32Q	SS34Q	SS36Q	SS310Q	SS315Q	SS320Q
Thermal Resistance	Junction to ambient	$R_{\theta J-A}$	$^{\circ}\text{C/W}$	48 ⁽¹⁾					
	Junction to lead	$R_{\theta J-L}$		13 ⁽¹⁾					

Note(1)

Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.6" x 0.6" (16 mm x 16 mm) copper pad areas

■ Ordering Information (Example)

PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SS32Q~SS320Q	F1	Approximate 0.254	3000	6000	42000	13" reel

■ Characteristics(Typical)

Fig.1: I_O - T_L Curve

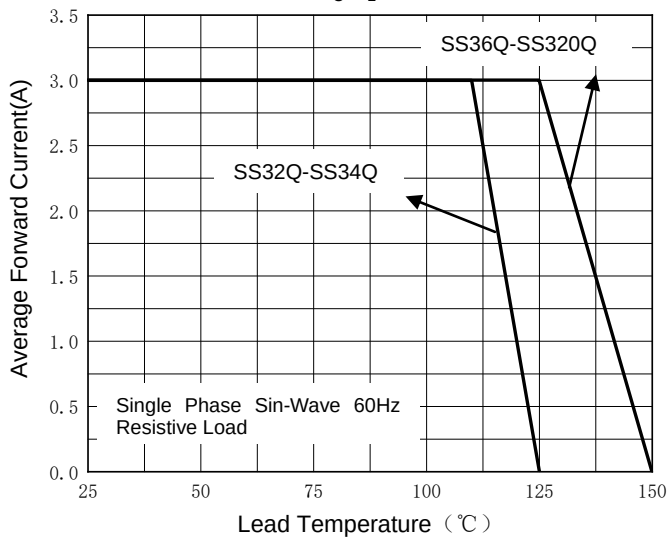


Fig.2: Surge Forward Current Capability

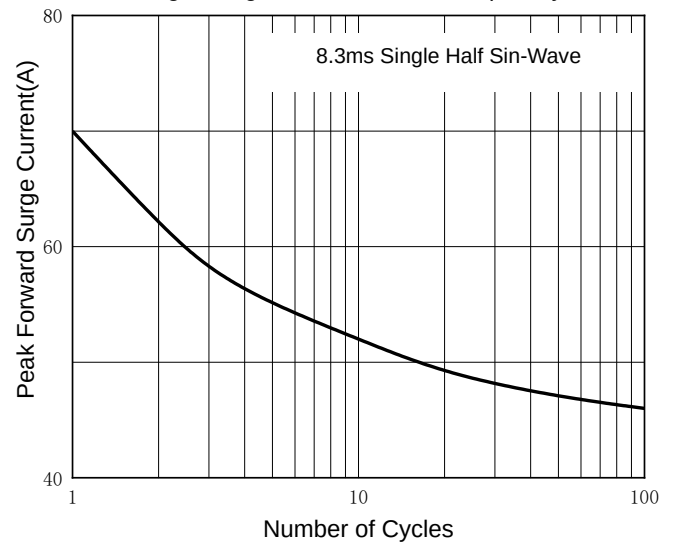


Fig.3: Forward Voltage

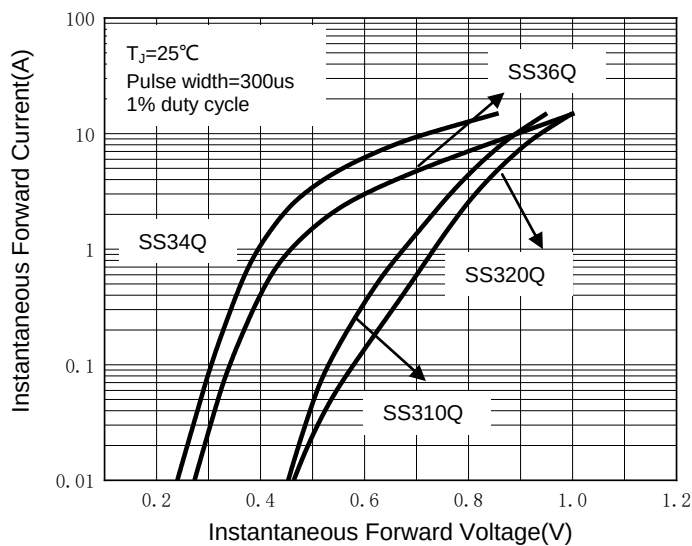
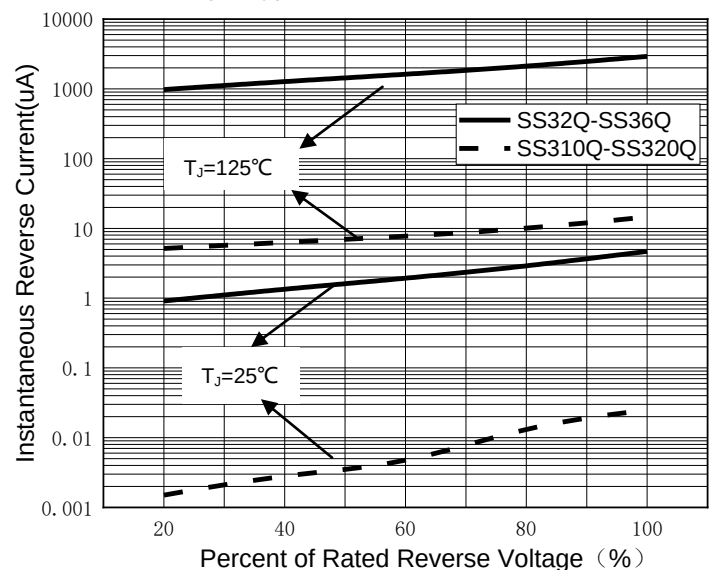


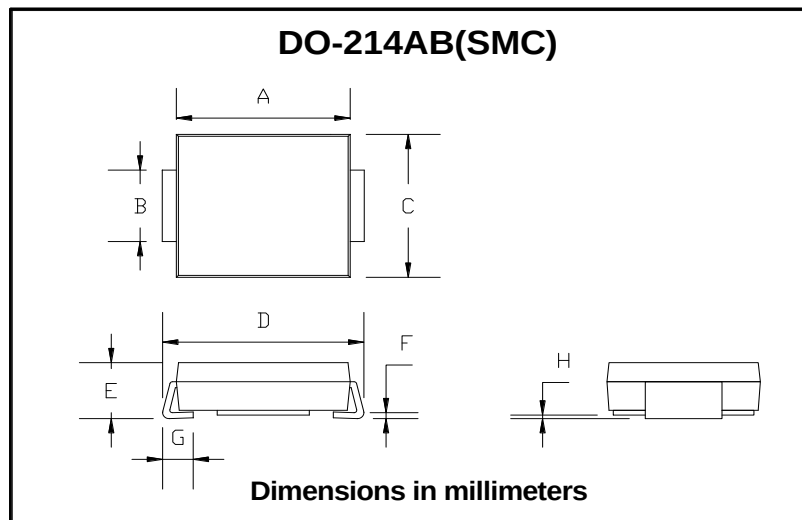
Fig.4: Typical Reverse Characteristics





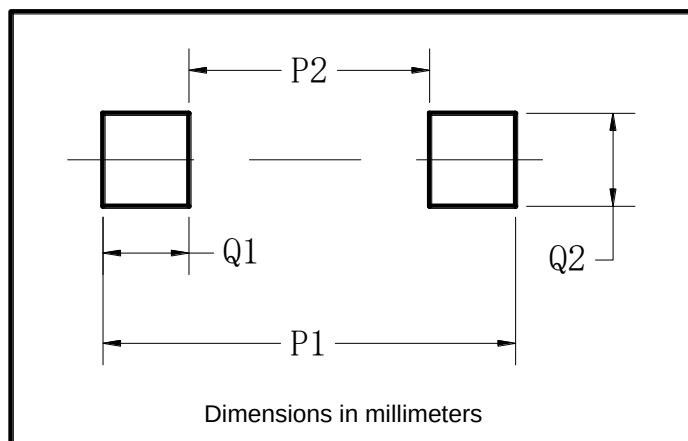
SS32Q THRU SS320Q

■ Outline Dimensions



DO-214AB (SMC)		
Dim	Min	Max
A	6.60	7.11
B	2.85	3.27
C	5.59	6.22
D	7.75	8.13
E	1.99	2.61
F	0.15	0.31
G	0.76	1.52
H	0.10	0.20

■ Suggested pad layout



Dim	Typ
P1	9.9
P2	3.84
Q1	3.03
Q2	3.82



SS32Q THRU SS320Q

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