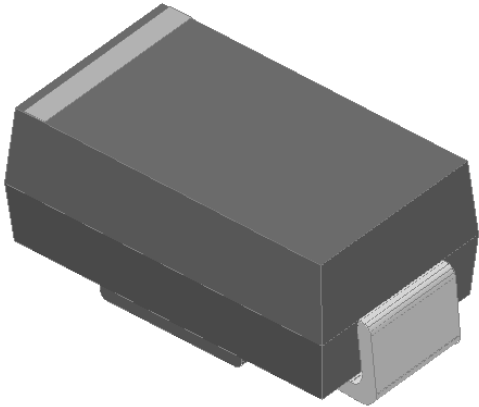


## Surface Mount Schottky Rectifier

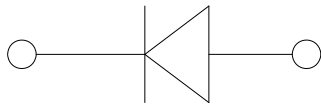


### Features

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

PARAMETER	SYMBOL	UNIT	SS								
			32AQ	33AQ	34AQ	35AQ	36AQ	38AQ	310AQ	315AQ	320AQ
Device marking code			SS								
			32A	33A	34A	35A	36A	38A	310A	315A	320A
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, $T_L$ (Fig.1)	$I_O$	A	3.0								
Surge(non-repetitive)forward current @60Hz half-sine wave,1 cycle, $T_a=25^\circ\text{C}$	$I_{FSM}$	A	70								
Storage temperature	$T_{STG}$	$^\circ\text{C}$	-55 ~+150								
Junction temperature	$T_J$	$^\circ\text{C}$	-55~+125				-55 ~+150				

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	SS									
				32AQ	33AQ	34AQ	35AQ	36AQ	38AQ	310AQ	315AQ	320AQ	
Maximum instantaneous forward voltage drop per diode	$V_F$	V	$I_F=3.0\text{A}$	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	$T_J=25^\circ\text{C}$	0.50					0.10				
			$T_J=100^\circ\text{C}$	10					5.0				



# SS32AQ THRU SS320AQ

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

PARAMETER	SYMBOL	UNIT	SS								
			32AQ	33AQ	34AQ	35AQ	36AQ	38AQ	310AQ	315AQ	320AQ
Thermal resistance	$R_{\theta J-A}$	$^\circ\text{C}/\text{W}$	55 <sup>1)</sup>								
	$R_{\theta J-L}$		17 <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

## ■ Characteristics (Typical)

Fig.1:  $I_O-T_L$  Curve

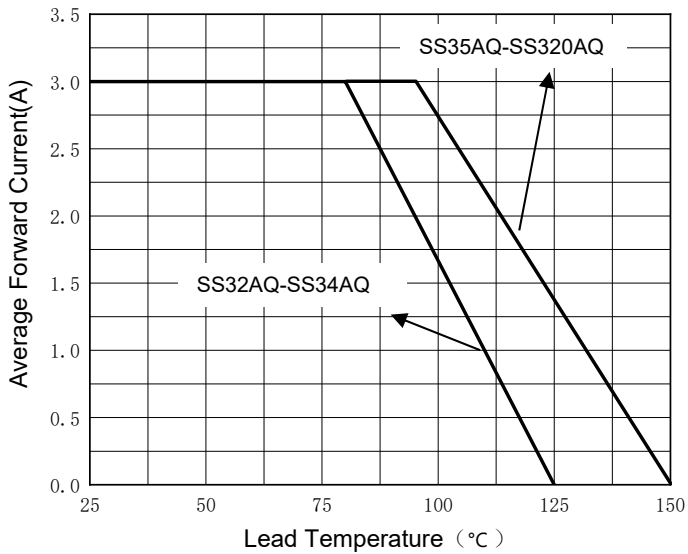


Fig.2: Surge Forward Current Capability

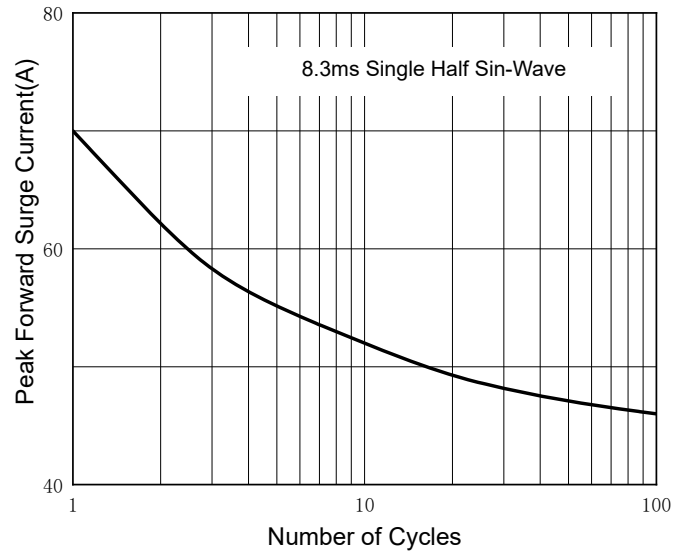


Fig.3: Forward Voltage

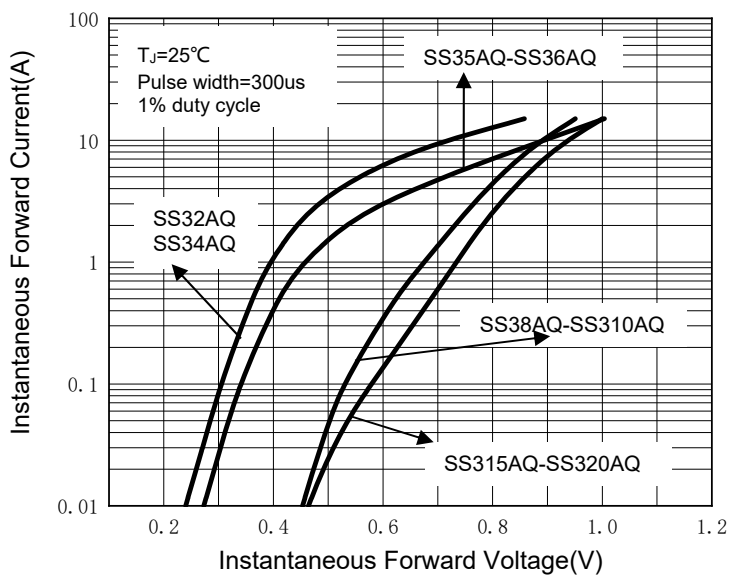
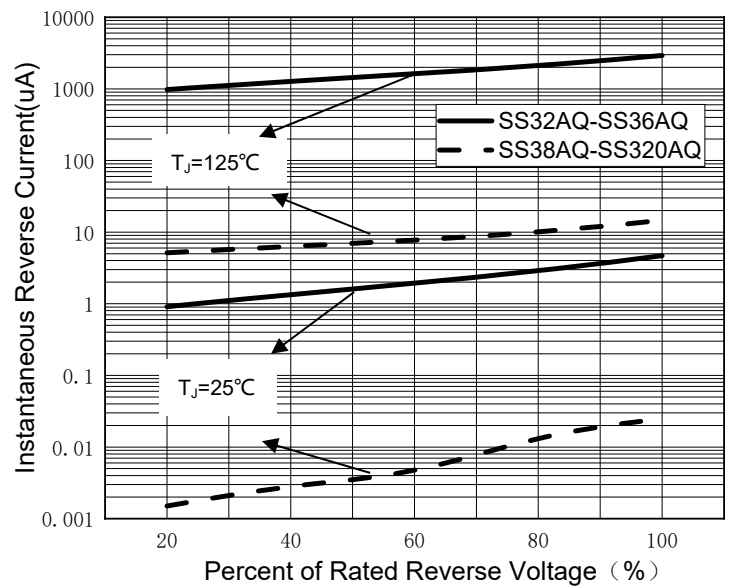


Fig.4: Typical Reverse Characteristics



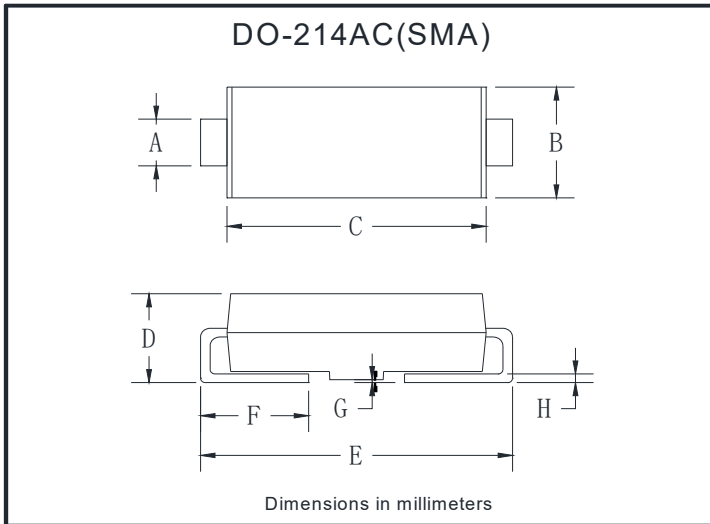


# SS32AQ THRU SS320AQ

## ■ Ordering Information (Example)

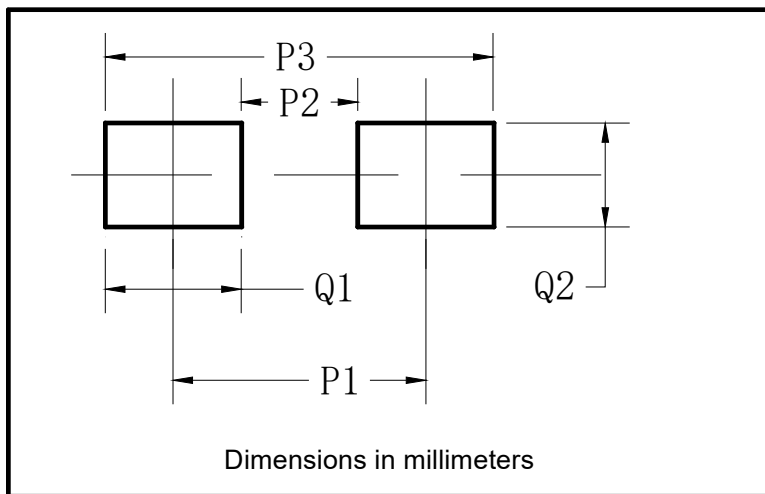
PREFERRED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SS32AQ-SS320AQ	F2	Approximate 0.067	7500	15000	120000	13" reel

## ■ Outline Dimensions



DO-214AC(SMA)		
Dim	Min	Max
A	1.25	1.58
B	2.40	2.83
C	4.25	4.75
D	1.90	2.30
E	4.93	5.28
F	0.76	1.41
G	0.08	0.20
H	0.15	0.31

## ■ Suggested Pad Layout



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



## SS32AQ THRU SS320AQ

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