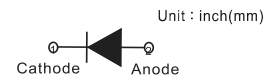
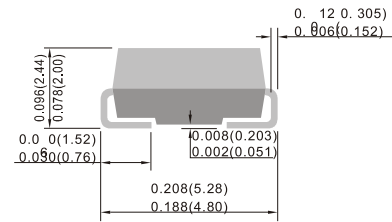
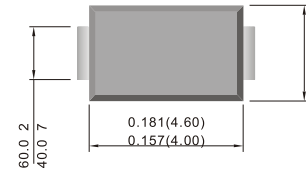


## Surface Mount Schottky Rectifier

### Features

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency
- High forward surge capability
- AEC-Q101 qualified
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

### DO-214AC (SMA)



### 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<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SS12-Q	SS13-Q	SS14-Q	SS15-Q	SS16-Q	SS18-Q	SS110-Q	SS115-Q	SS120-Q	
Repetitive peak reverse voltage	V <sub>RRM</sub>	V	20	30	40	50	60	80	100	150	200	
Average rectified output current @60Hz sine wave, resistance load, TL (FIG.1)	I <sub>O</sub>	A	1.0									
Surge(non-repetitive)forward current @60Hz half-sine wave,1 cycle, T <sub>a</sub> =25°C	I <sub>FSM</sub>	A	30									
Storage temperature	T <sub>stg</sub>	°C	-55 ~+150									
Junction temperature	T <sub>j</sub>	°C	-55 ~+150					-55 ~+175				

### ■Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	SS							
				12-Q	13-Q	14-Q	15-Q	16-Q	18-Q	110-Q	115-Q
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	I <sub>FM</sub> =1.0A	0.55		0.70		0.85		0.95	
Maximum DC reverse current at rated DC blocking voltage per diode@ V <sub>RM</sub> =V <sub>RRM</sub>	I <sub>RRM</sub>	mA	T <sub>a</sub> =25°C	0.50				0.10			
			T <sub>a</sub> =100°C	10				5.0			

### ■Thermal Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SS							
			12-Q	13-Q	14-Q	15-Q	16-Q	18-Q	110-Q	115-Q
Thermal resistance	R <sub>θJ-A</sub>	°C/W	65 <sup>1)</sup>							
	R <sub>θJ-L</sub>		20 <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)

FIG1:  $I_o$ -TL Curve

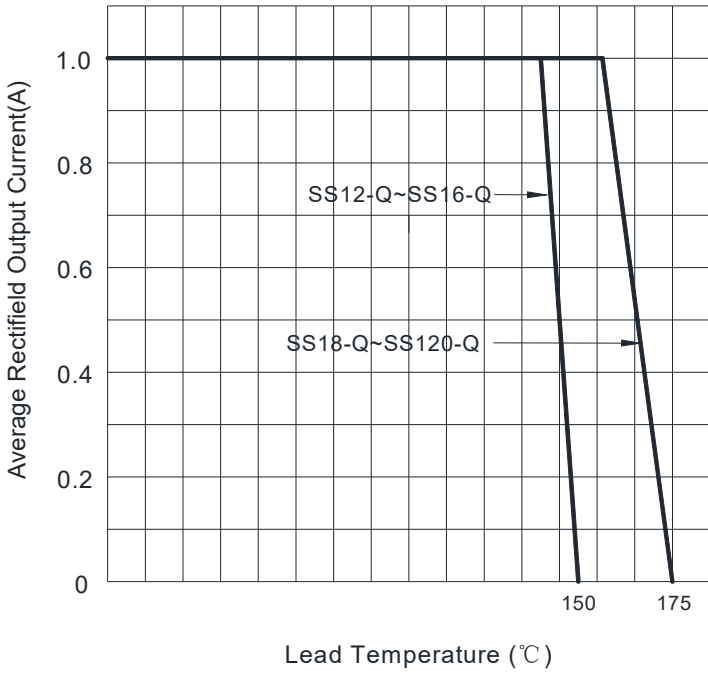


FIG2: Surge Forward Current Capability

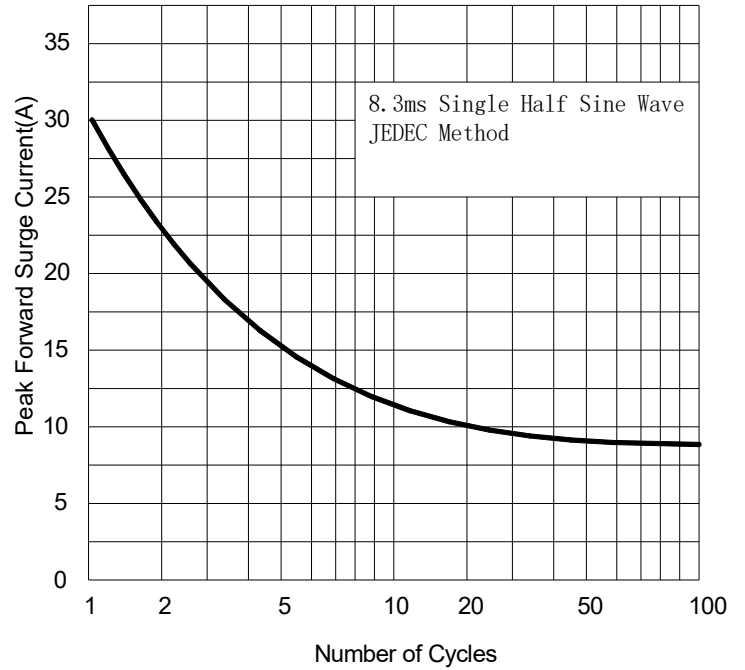


FIG3: TYPICAL FORWARD CHARACTERISTICS

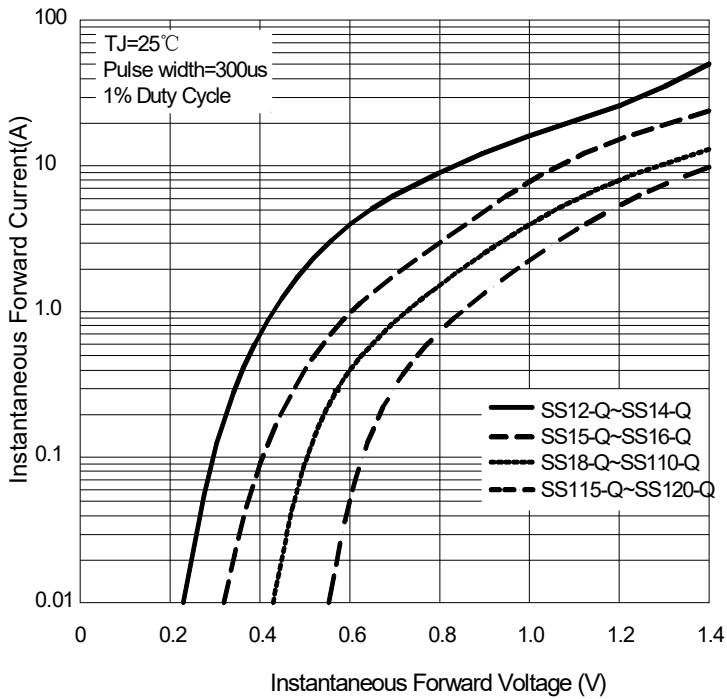


FIG4: Typical Reverse Characteristics

