

Surface Mounted Schottky Barrier Diode

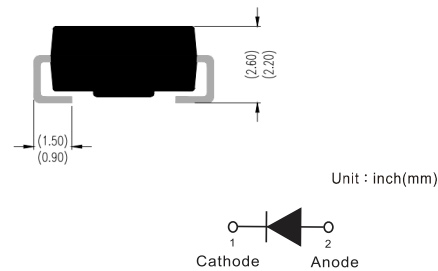
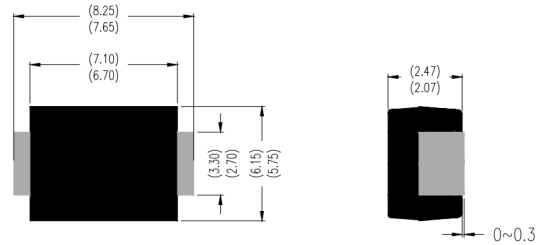
SMC/DO-214AB

Features

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency
- High forward surge capability
- AEC-Q101 qualified
- Compliant with RoHS standards, halogen-free

Mechanical Data

- **Package:** SMC/DO-214AB
- **Terminals:** Tin plated leads, solderable per
- **Polarity:** Color band denotes the cathode end



Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Unit	SS32CQ	SS33CQ	SS34CQ	SS35CQ	SS36CQ	SS38CQ	SS310CQ	SS315CQ	SS320CQ
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_a (FIG.1)	I_O	A	3.0								
Forward Surge Current (Non-repetitive) @ 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 ~ +150						-55 ~ +175		

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Unit	Test Conditions	SS32CQ	SS33CQ	SS34CQ	SS35CQ	SS36CQ	SS38CQ	SS310CQ	SS315CQ	SS320CQ
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =3.0A	0.55			0.70		0.85		0.95	
Maximum DC reverse current at rated DC blocking voltage per diode	I _R	mA	T _a =25°C	0.5					0.10			
			T _a =100°C	10					5.0			

Thermal Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter		Symbol	Unit	SS32CQ	SS33CQ	SS34CQ	SS35CQ	SS36CQ	SS38CQ	SS310CQ	SS315CQ	SS320CQ
Thermal Resistance	Junction to ambient	$R_{\theta J-A}$	$^{\circ}\text{C/W}$	55 ⁽¹⁾								
	Junction to lead	$R_{\theta J-L}$		17 ⁽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

Characteristics (Typical)

FIG.1: I_o - T_a Curve

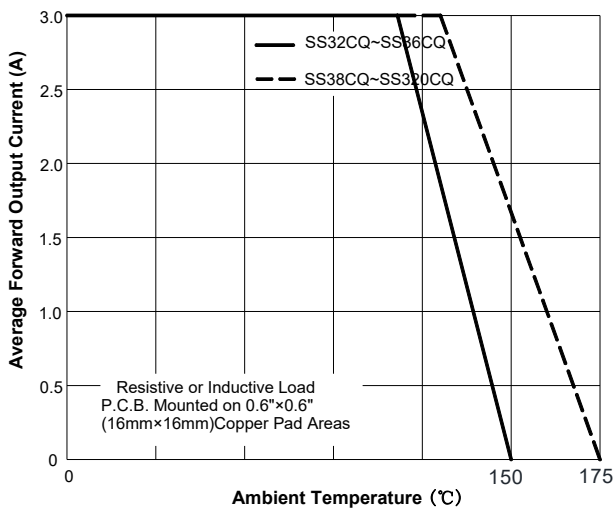


FIG.2: Forward Surge Current Capability

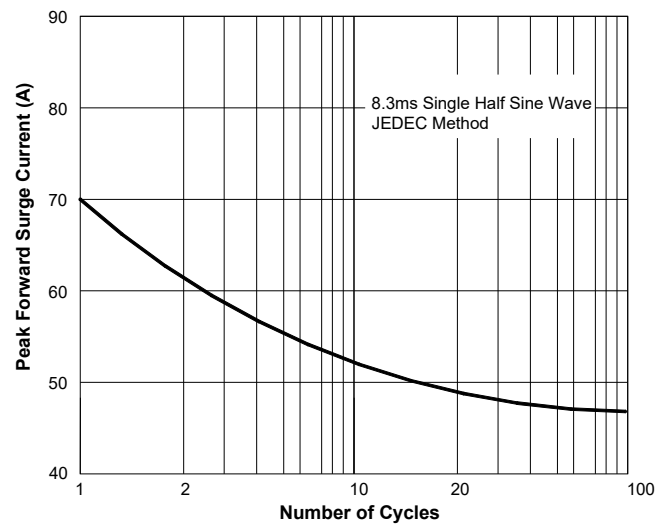


FIG.3: Forward Voltage

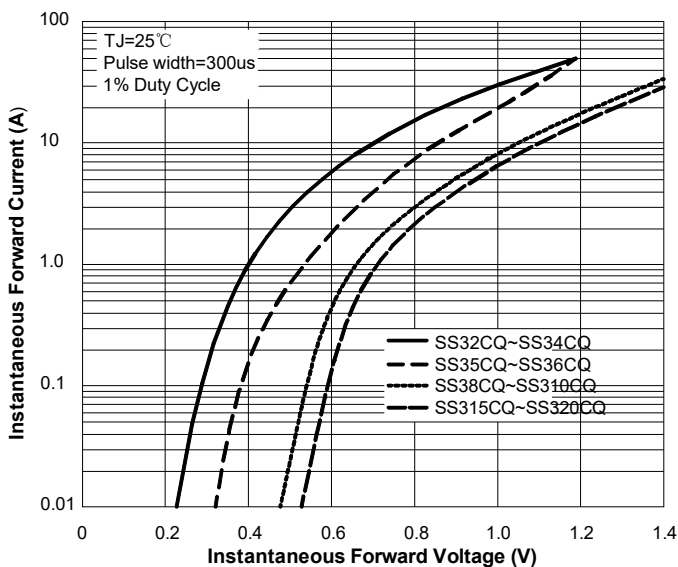


FIG.4: Typical Reverse Characteristics

