

Surface Mount Schottky Barrier Diode

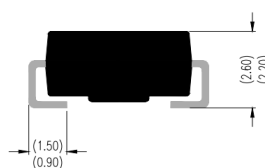
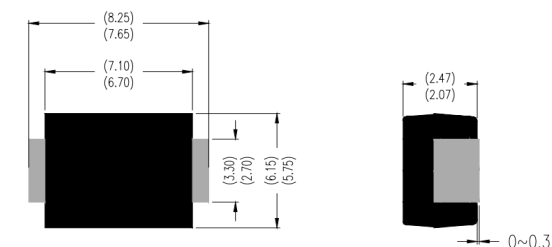
Features

- Guardring for overvoltage protection
- Low power loss
- Extremely fast switching
- High forward surge current capability
- High frequency operation
- AEC-Q101 qualified
- Solder dip 260 °C max. 10 s, per JESD 22-B106

Mechanical Data

- Package: DO-214AB (SMC)
- Polarity : Polarity symbol marking on body
- Epoxy: UL 94V-0 rate flame retardant
- Mounting Position : Any

DO-214AB (SMC)



Unit : inch(mm)



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

Parameter	Symbol	Unit	SS102CQ	SS103CQ	SS104CQ	SS105CQ	SS106CQ	SS108CQ	SS1010CQ	SS1015CQ	SS1020CQ
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, TL (FIG.1)	I_O	A	10.0								
Surge(Non-repetitive)Forward Current @60Hz Half-sine wave, 1 cycle, $T_A=25^{\circ}\text{C}$	I_{FSM}	A	120								
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 specified)

Parameter	Symbol	Unit	Test Conditions	SS102CQ	SS103CQ	SS104CQ	SS105CQ	SS106CQ	SS108CQ	SS1010CQ	SS1015CQ	SS1020CQ
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =10.0A	0.55			0.70		0.85		0.95	
Maximum DC reverse current at rated DC blocking voltage per diode	I _R	mA	Ta=25℃	0.2					0.1			
			Ta=100℃	20					5.0			

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

Parameter		Symbol	Unit	SS102CQ	SS103CQ	SS104CQ	SS105CQ	SS106CQ	SS108CQ	SS1010CQ	SS1015CQ	SS1020CQ
Thermal Resistance	Between junction and ambient	$R_{\theta J-A}$	$^{\circ}\text{C}/\text{W}$	65 ⁽¹⁾								
	Between junction and lead	$R_{\theta J-L}$		8 ⁽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: Io-TL Curve

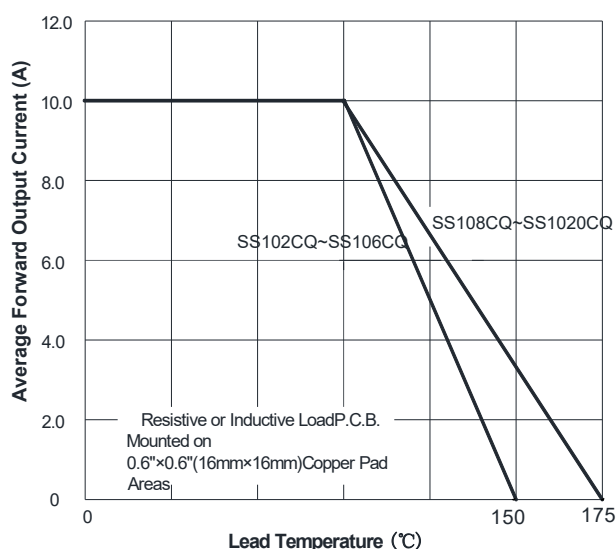


FIG.2: Forward Surge Current Capability

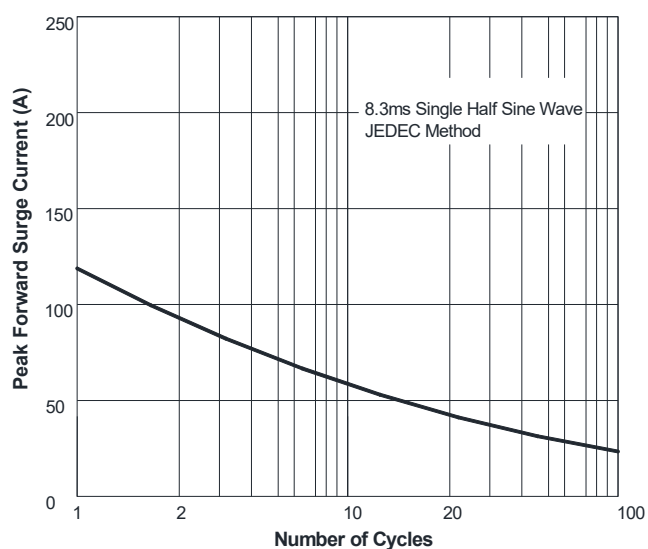


FIG.3: Forward Voltage

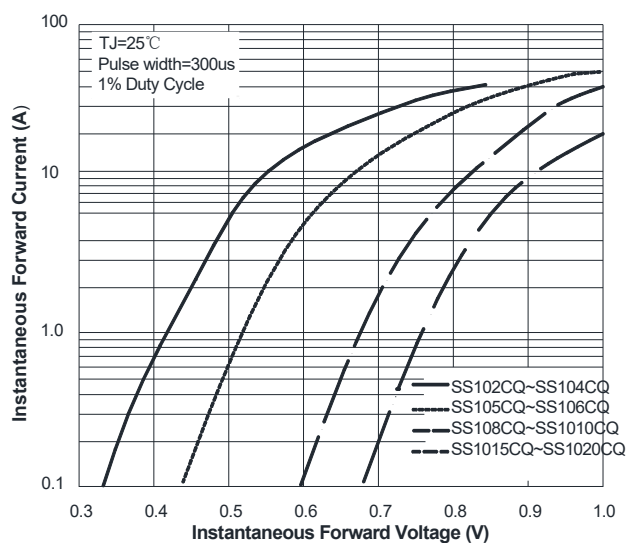


FIG.4: Typical Reverse Characteristics

