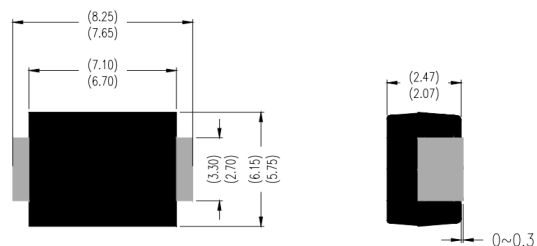


Surface Mount Schottky Barrier Diode

Features

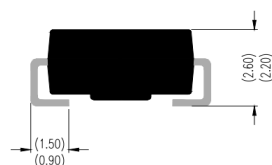
- Guardring for overvoltage protection
- Low power loss
- Extremely fast switching
- High forward surge current capability
- High frequency operation
- Solder dip 260 °C max. 10 s, per JESD 22-B106

DO-214AB (SMC)

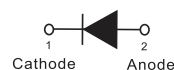


Mechanical Data

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



Unit : inch(mm)



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

Parameter	Symbol	Unit	SS82C	SS84C	SS86C	SS810C	SS815C	SS820C
Repetitive Peak Reverse Voltage	V_{RRM}	V	20	40	60	100	150	200
Average Rectified Output Current @60Hz sine wave, Resistance load, T_a (FIG.1)	I_O	A	8.0					
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	SS82C	SS84C	SS86C	SS810C	SS815C	SS820C
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =8.0A	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		
Typical junction capacitance	Cj	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C.	450		350	270	180	

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

Parameter		Symbol	Unit	SS82C	SS84C	SS86C	SS810C	SS815C	SS820C
Thermal Resistance	Between junction and ambient	$R_{\theta J-A}$	$^{\circ}\text{C/W}$	45 ⁽¹⁾					
	Between junction and lead	$R_{\theta J-L}$		12 ⁽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_L Curve

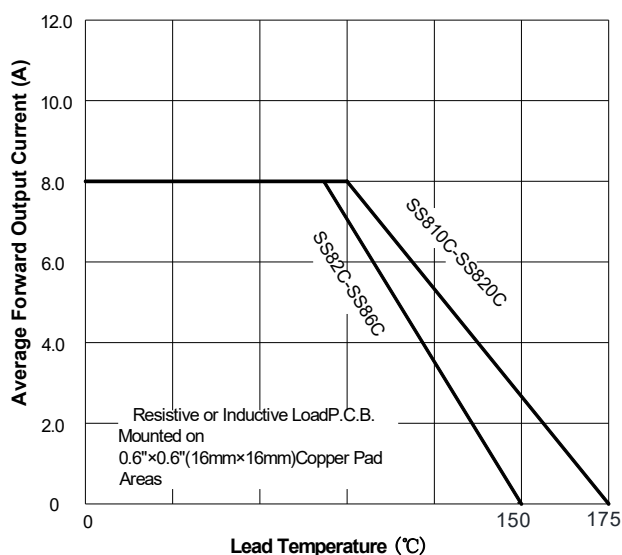


FIG.2: Forward Surge Current Capability

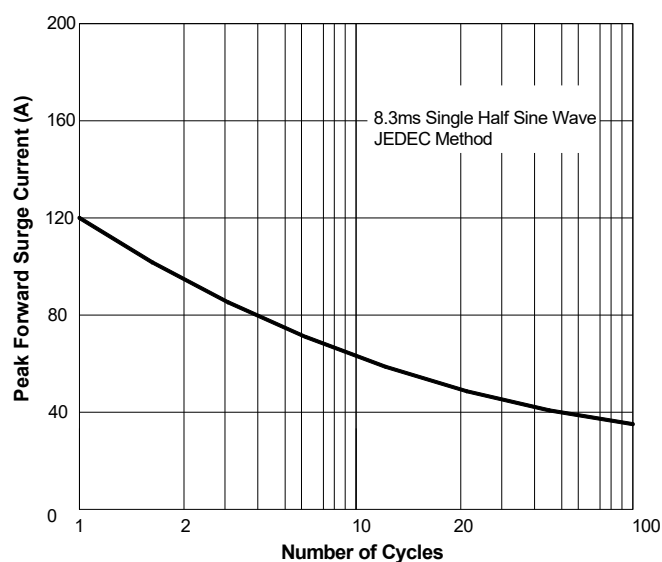


FIG.3: Forward Voltage

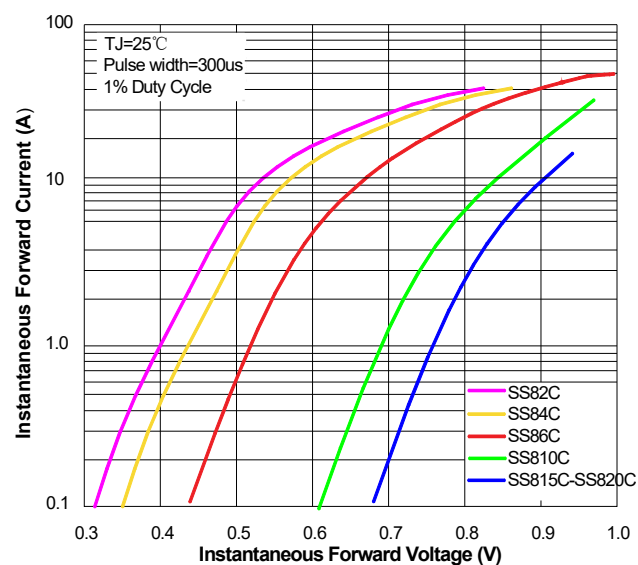


FIG.4: Typical Reverse Characteristics

