

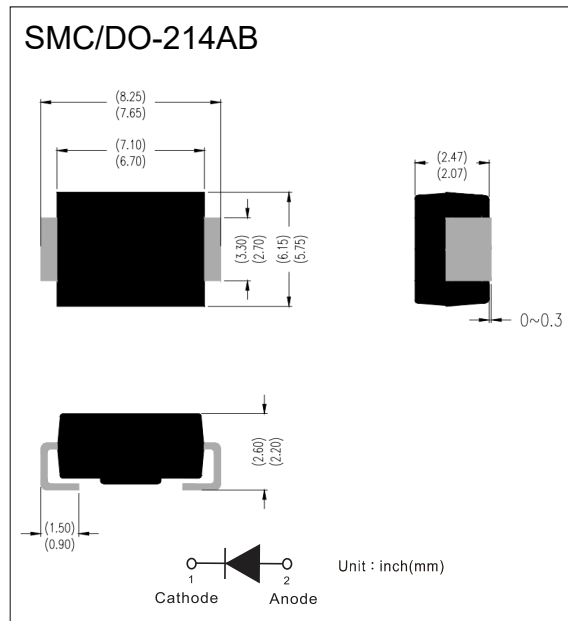
10A, 50V - 1000V Surface Glass Passivated Mount Rectifier

Features

- Glass passivated junction chip
- Ideal for automated placement
- Low forward voltage drop
- High surge current capability
- Comply with RoHS standard, halogen-free

Mechanical Data

- package: SMC/DO-214AB
- Polarity: Indicated by cathode band
- Epoxy: UL 94V-0 rate flame retardant
- Mounting Position : Any



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

Parameter	Symbol	Unit	S10AC	S10BC	S10DC	G10GC	S10JC	S10KC	S10MC
Maximum Repetitive peak reverse voltage	V_{RRM}	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	V_{RMS}	V	35	70	140	280	420	560	700
Maximum DC Blocking Voltage	V_{DC}	V	50	100	200	400	600	800	1000
Average Rectified Output Current @60Hz sine wave, Resistance load, TL (FIG.1)	I_O	A	10						
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, $T_j=25^\circ\text{C}$	I_{FSM}	A	200						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, $T_j=25^\circ\text{C}$			400						
Current squared time @1ms≤t≤8.3ms $T_j=25^\circ\text{C}$, Rating of per diode	I^2t	A^2s	166						
Typical junction capacitance @Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	C_j	pF	55						
Storage Temperature	T_{stg}	$^\circ\text{C}$	-55 ~ +150						
Junction Temperature	T_j	$^\circ\text{C}$	-55 ~ +150						



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

Parameter	Symbol	Unit	S10AC	S10BC	S10DC	S10GC	S10JC	S10KC	S10MC
Typical Thermal resistance	R θ J-A(1)	$^{\circ}\text{C}/\text{W}$	50						
	R θ J-L(1)		10						
	R θ J-C(1)		8						

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

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

Parameter	Symbol	Unit	Test Conditions	S10AC	S10BC	S10DC	S10GC	S10JC	S10KC	S10MC
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =10A	1.1						
Maximum DC reverse current at rated DC blocking voltage per diode	I _R	μA	T _j =25 $^{\circ}\text{C}$	5						
			T _j =125 $^{\circ}\text{C}$	100						



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

FIG.1: I_o -TL Curve

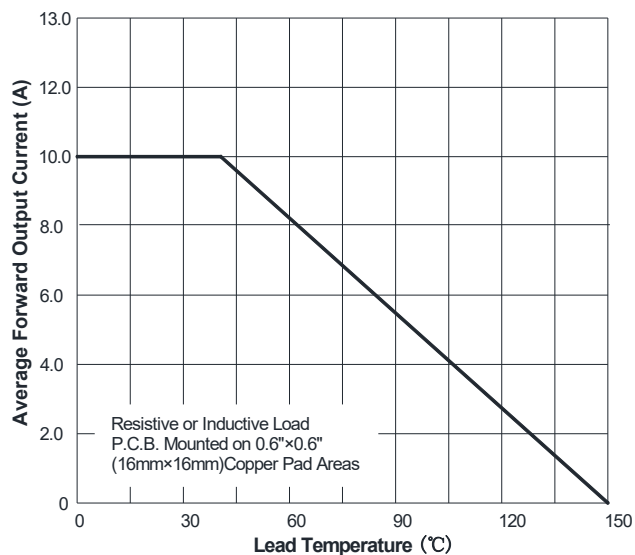


FIG.2: Forward Surge Current Capability

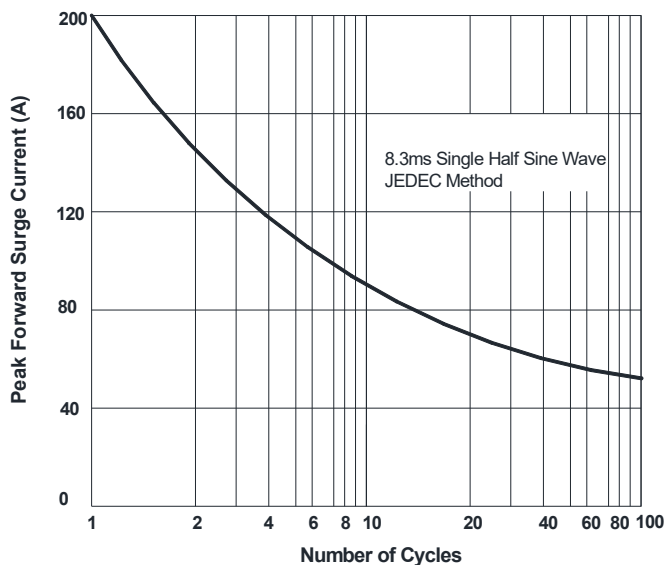


FIG.3: Typical Forward Voltage

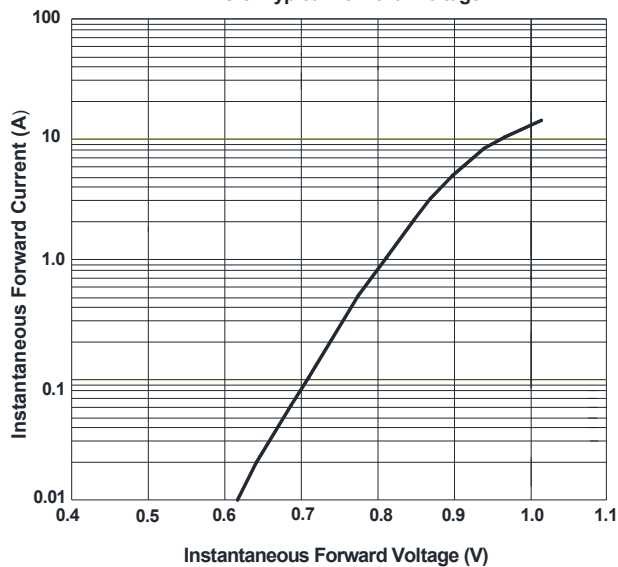


FIG.4: Typical Reverse Characteristics

