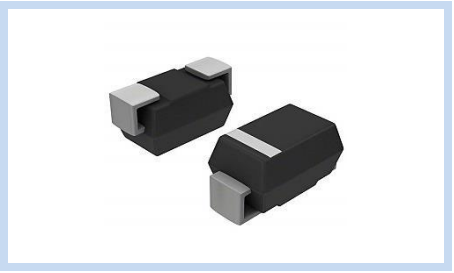
Silicon Rectifier, Glass Passivated 10A, 50~1KV SMC AEC-Q101

S10xC-A Series

MERITEK

FEATURE

- Low Power Loss, High Efficiency
- Ideally Suited for Automated Assembly Processes
- Application: Power Management Systems, Voltage Regulation
- AEC-Q101 Qualified



MECHANICAL DATA

- Case: DO-214AB SMC, Molded Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: Band Marking denotes cathode end

RoHS

MAXIMUM RATINGS and ELECTRICAL CHARACTERISTICS

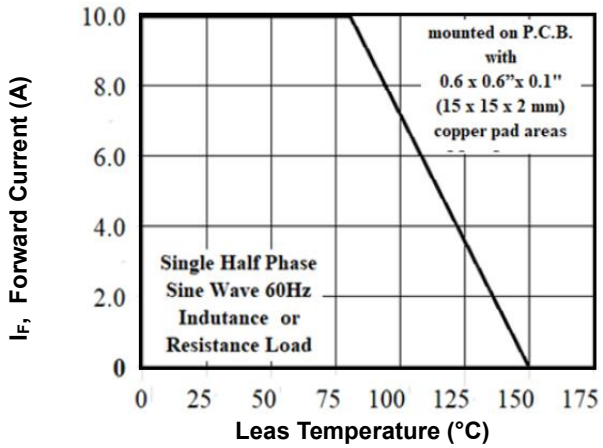
Parameter		Symbol	S10 AC-A	S10 BC-A	S10 DC-A	S10 GC-A	S10 JC-A	S10 KC-A	S10 MC-A	Unit
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage		V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage		V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current		I_{AV}	10							A
Peak Forward Surge Current, 8.3ms single half sine wave (JEDEC method)		I_{FSM}	250							A
Peak Forward Surge Current, 1.0ms single half sine wave (JEDEC method)		I_{FSM}	500							A
Maximum Forward Voltage at 10.0A		V_F	1.1							V
Maximum Reverse Current at Rated V_{DC}	T_J =25°C	I_R	10							uA
	T_J =125°C		250							
Typical Thermal Resistance (Note 2)		$R_{\theta JA}$	12							°C/W
		$R_{\theta JC}$	7							
		$R_{\theta JL}$	3							
I^2T Rating for Fusing		I^2	518.75							A
Operating Junction Temperature		T_J	-55 ~ 150							°C
Storage Temperature		T_{stg}	-55 ~ 150							°C

Note

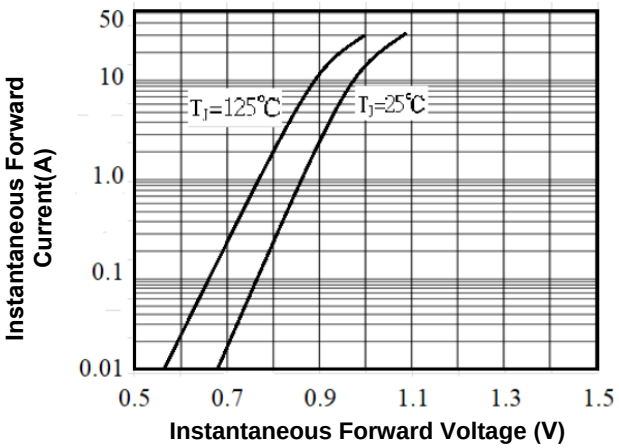
1. Measured at 1MHZ and applied reverse voltage of 4.0V_{DC}
2. Thermal resistance from junction to ambient and from junction to lead mounted onP.C.B. with 0.6"x0.6x0.1(15x15x2.0mm)copper pad areas.
3. TA=25˚C unless otherwise noted

CHARACTERISTIC CURVES

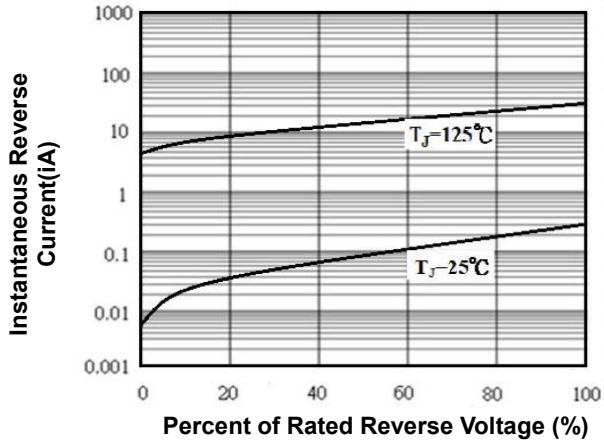
Forward Current Derating Curve



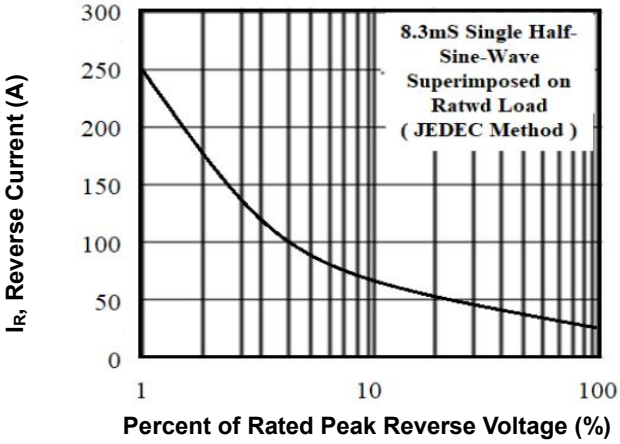
Typical Instantaneous Forward Characteristics



Typical Reverse Characteristics



Typical Reverse Characteristics



*Specifications subject to change without notice.