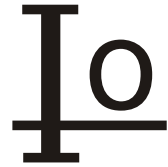


S10A THRU S10M

10.0 AMP SURFACE MOUNT SILICON RECTIFIERS



FEATURES

- * Low forward voltage drop
- * High current capability
- * High reliability
- * High surge current capability

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Moisture Sensitivity Level 1
- * Lead Free Finish/RoHS Compliant
- * High Temp Soldering: 260°C for 10 Seconds At Terminals
- * Lead Free Finish/RoHS Compliant
- * Weight: 0.215 grams

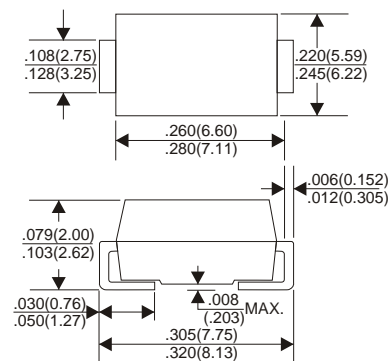
VOLTAGE RANGE

50 to 1000 Volts

CURRENT

10.0 Ampere

DO-214AB(SMC)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

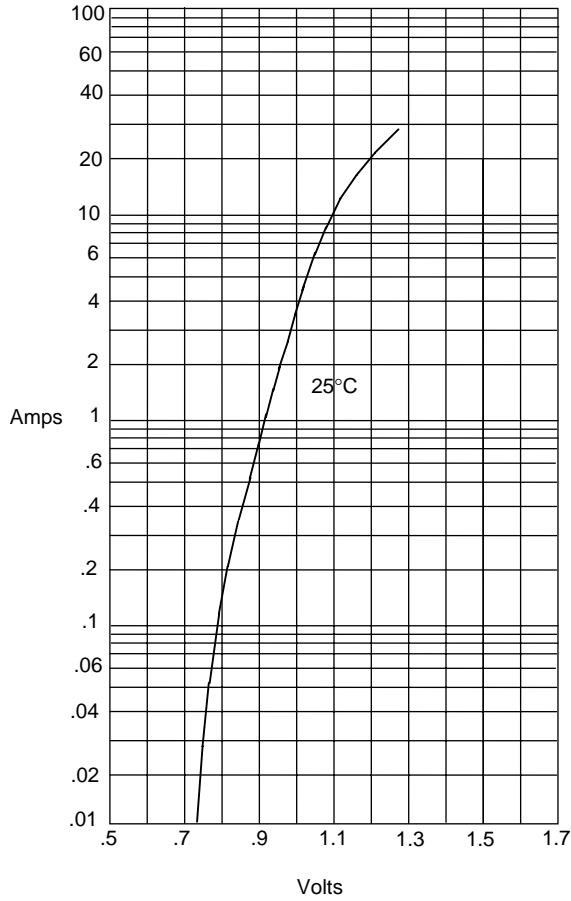
TYPE NUMBER	S10A	S10B	S10D	S10G	S10J	S10K	S10M	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current (75°C)	10.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	200							A
Maximum Instantaneous Forward Voltage at 10.0A	1.1							V
Maximum DC Reverse Current Ta=25°C	5.0							μA
at Rated DC Blocking Voltage Ta=100°C	50							μA
Typical Junction Capacitance (Note 1)	120							pF
Typical Thermal Resistance R JA (Note 2)	10							°C/W
Operating and Storage Temperature Range Tj, TSTG	-65 — +150							°C

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Maximum Thermal Resistance: 10°C/W Junction To Case

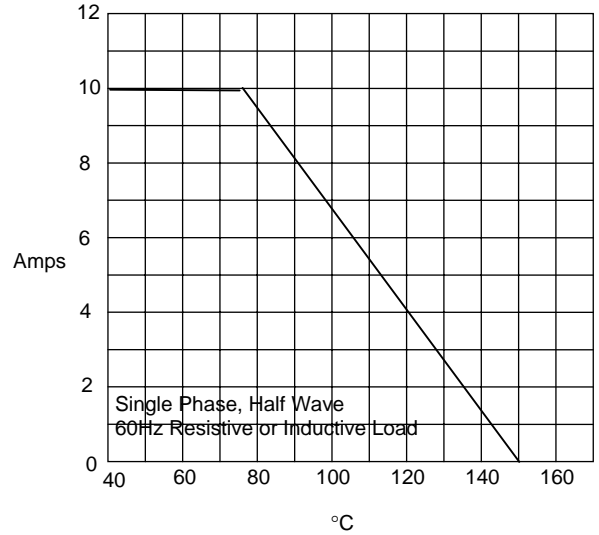
RATING AND CHARACTERISTIC CURVES (S10A THRU S10M)

Figure 1
Typical Forward Characteristics



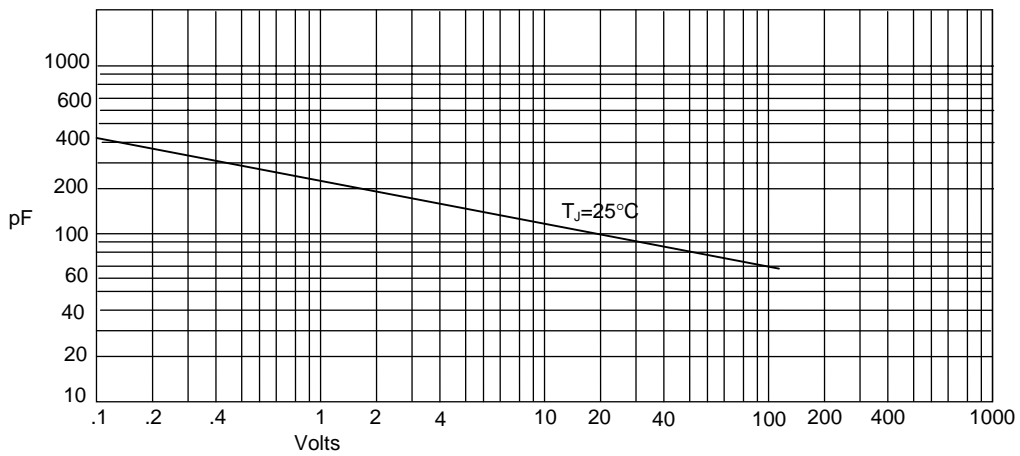
Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



Average Forward Rectified Current - Amperes versus
Case Temperature - °C

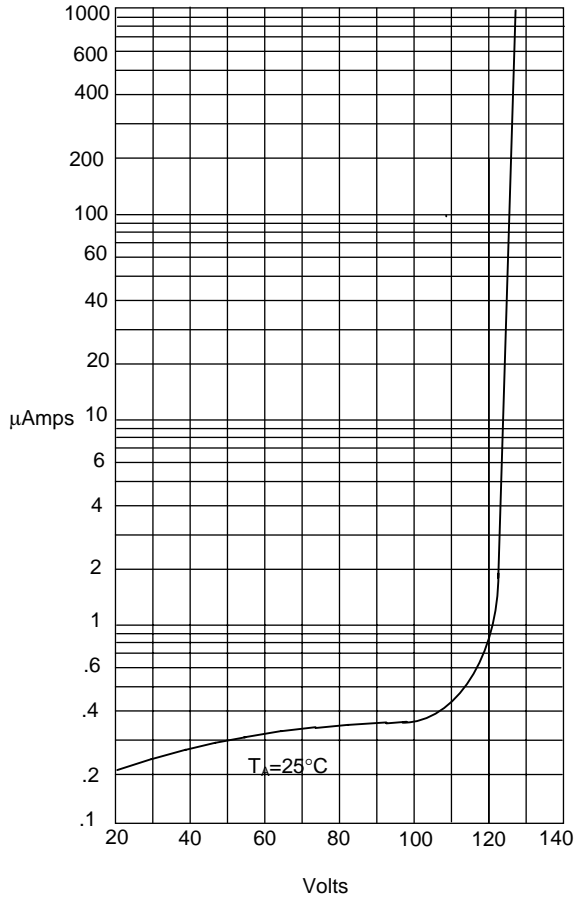
Figure 3
Junction Capacitance



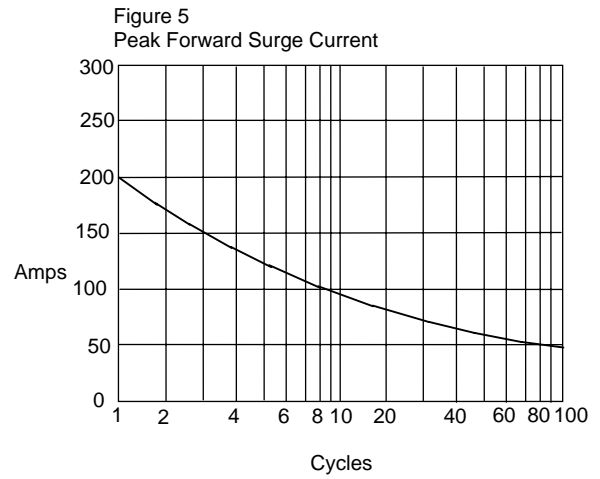
Junction Capacitance - pF versus
Reverse Voltage - Volts

RATING AND CHARACTERISTIC CURVES (S10A THRU S10M)

Figure 4
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperes versus
Percent Of Rated Peak Reverse Voltage - Volts



Peak Forward Surge Current - Amperes versus
Number Of Cycles At 60Hz - Cycles