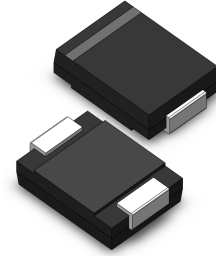


VOLTAGE RANGE: 20 - 40V
CURRENT: 3.0 A

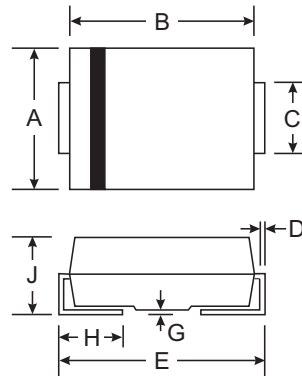


Features

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-O

Mechanical Data

- Case: SMC/DO-214AB, Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.21 grams (approx.)



SMC/DO-214AB		
Dim	Min	Max
A	5.59	6.22
B	6.60	7.11
C	2.75	3.18
D	0.15	0.31
E	7.75	8.13
G	0.10	0.20
H	0.76	1.52
J	2.00	2.62
All Dimensions in mm		



Maximum Ratings and Electrical Characteristics T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	SM5820	SM5821	SM5822	Unit
Maximum recurrent peak reverse voltage	V _{RRM}	20	30	40	V
Maximum RMS voltage	V _{RMS}	14	21	28	V
Maximum DC blocking voltage	V _{DC}	20	30	40	V
Maximum average forward rectified current @T _L =90°C	I _{F(AV)}	3.0			A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @T _J =125°C	I _{FSM}	80.0			A
Maximum instantaneous forward voltage @ 3.0A (Note 1) @ 9.4A	V _F	0.475 0.85	0.50 0.90	0.525 0.95	V
Maximum reverse current @T _A =25°C at rated DC blocking voltage @T _A =100°C	I _R	2.0 20.0			mA
Typical junction capacitance (Note2)	C _J	250			pF
Typical thermal resistance (Note3)	R _{θJA}	20			°C/W
Operating junction temperature range	T _J	- 55 ---- + 125			°C
Storage temperature range	T _{STG}	- 55 ---- + 150			°C

NOTE: 1. Pulse test : 300 μs pulse width, 1% duty cycle.
 2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
 3. Thermal resistance junction to ambient

Ratings AND Characteristic Curves

FIG.1 – FORWARD DERATING CURVE

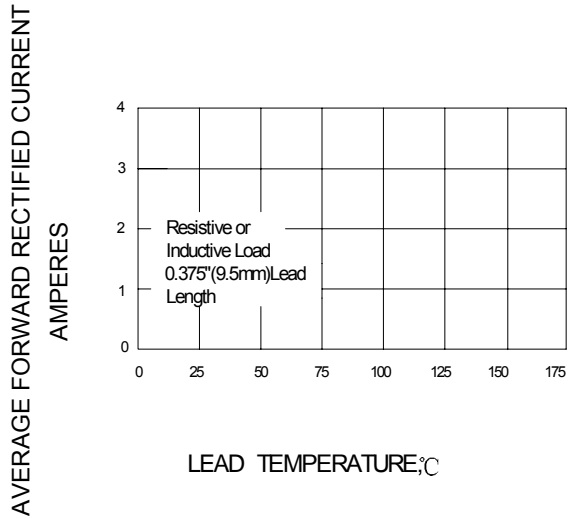


FIG.2 – PEAK FORWARD SURGE CURRENT

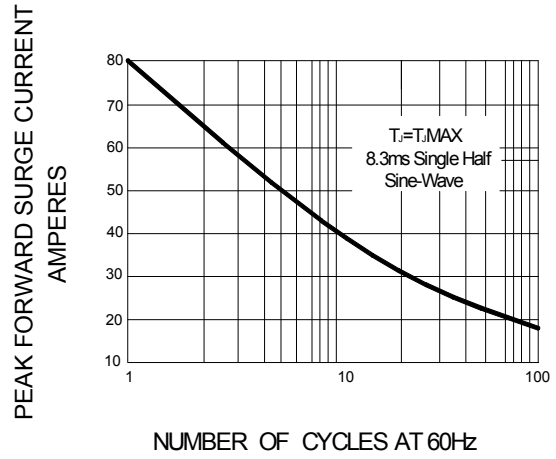


FIG.3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

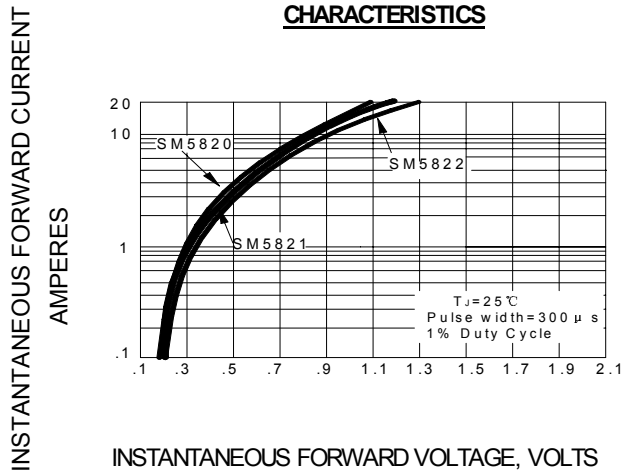


FIG.4 – TYPICAL JUNCTION CAPACITANCE

