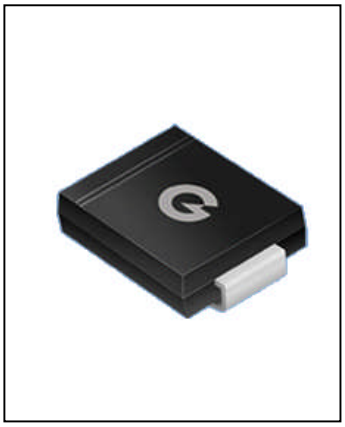
SCHOTTKY BARRIER RECTIFIERS *SM5820--SM5822*

FEATURES

Lead-free



- Metal silicon junction, majority carrier conduction
- High surge capability
- Low power loss, high efficiency
- Epitaxial construction
- For use in low voltage high frequency inverters, free Wheeling and polarity protection applications
- The plastic material carries U/L recognition 94V-0

MECHANICAL DATA

- Case: JEDEC SMC, molded plastic over passivated chip
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.007 ounces, 0.21 gram
- Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified

		SM5820	SM5821	SM5822	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	V
Maximum RMS voltage	V_{RWS}	14	21	28	V
Maximum DC blocking voltage	V_{DC}	20	30	40	V
Maximum average for word rectified current at @T_L=90℃	$I_{F(AV)}$	3.0			A
Peak forward surge current 8.3ms single half-sine-wave @T_J=125℃	I_{FSM}	80.0			A
Maximum instantaneous forward voltage at3.0A(NOTE1)	V_F	0.475	0.50	0.525	V
Maximum DC reverse current @T_A=25℃ at rated DC blocking voltage @T_A=100℃	I_R	2.0 20.0			m A
Typical thermal resistance (NOTE2)	$R_{\theta JA}$	20			℃/W
Operating temperature range	T_J	-55--- +125			℃
Storage temperature range	T_{STG}	-55--- +125			℃

NOTE: 1.Pulse test:300μS pulse width,1%duty cycle

2. Thermal resistance junction to ambient

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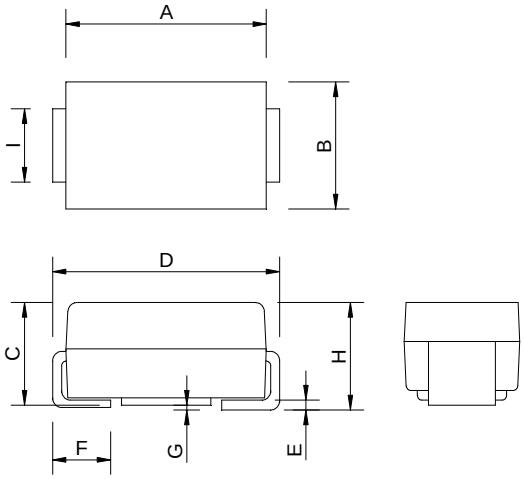
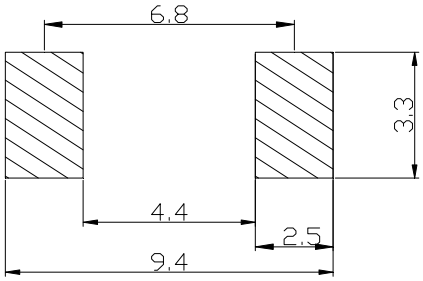
PACKAGE OUTLINE DIMENSIONS



DO-214AB(SMC)		
Dim	Min	Max
A	6.70	7.10
B	5.70	6.10
C	2.10	2.40
D	7.55	8.05
E	0.15	0.35
F	1.00	1.60
G	0.20MAX	
H	2.15	2.45
I	2.85	3.15
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit ： mm

PACKAGE INFORMATION

Device	Package	Shipping
SM5820--SM5822	DO-214AB(SMC)	3000/Tape&Reel

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FIG.1 – FORWARD DERATING CURVE

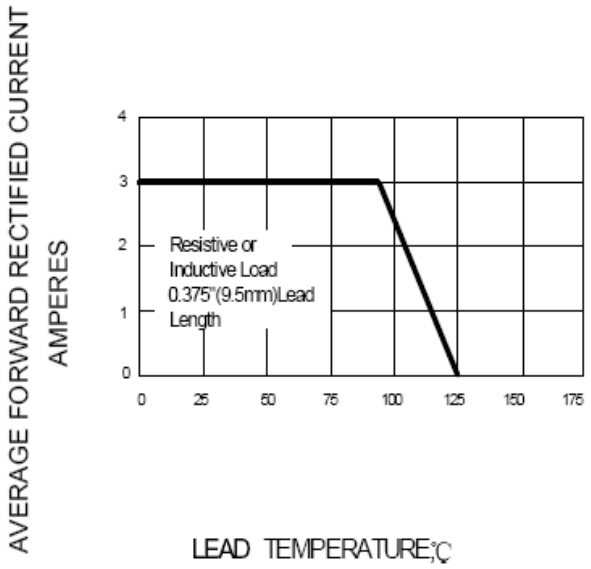

FIG.2 -- PEAK FORWARD SURGE CURRENT

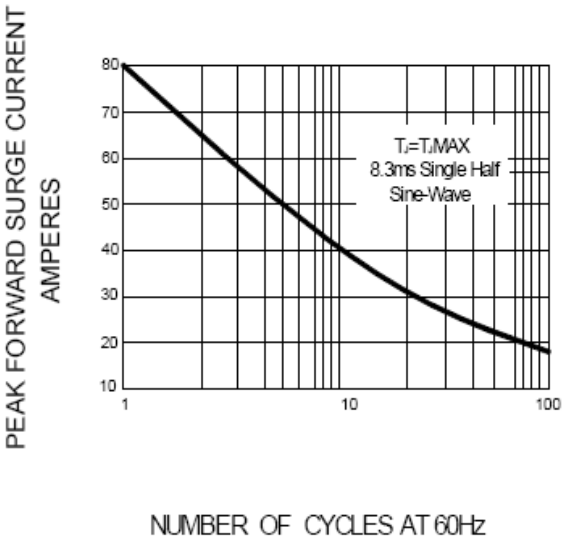

FIG.3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

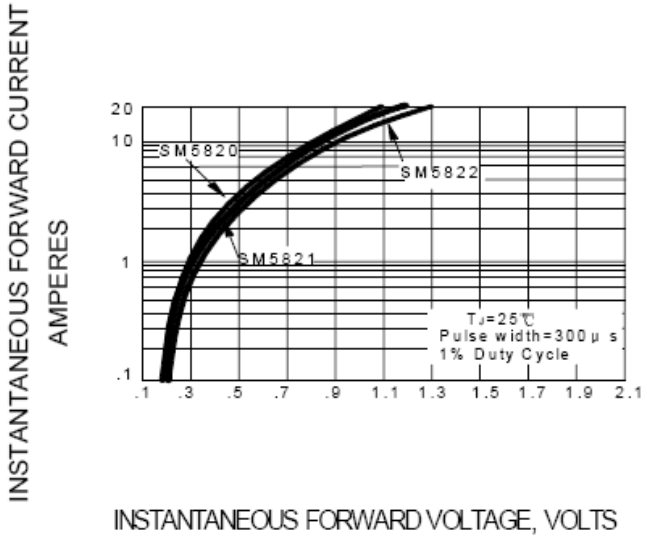

FIG.4 -- TYPICAL JUNCTION CAPACITANCE