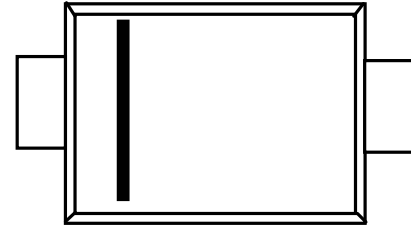


## »Features

- Super fast switching time for high efficiency
- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability
- Epitaxial construction



SMC(DO-214AB)

## »General Description

- Case: molded plastic
- Polarity: Color band denotes cathode
- Package: SMC Plastic Package

## » Maximum Ratings and Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

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

Parameter	Symbols	S5A	S5B	S5D	S5G	S5J	S5K	S5M	Units
Maximum repetitive 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 at $T_L=100^{\circ}C$	$I_{(AV)}$	5.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	150.0							A
Maximum instantaneous forward voltage at 5.0A	$V_F$	1.10							V
Maximum DC reverse current $T_A=25^{\circ}C$ at rated DC blocking voltage $T_A=125^{\circ}C$	$I_R$	5.0 500							$\mu A$
Typical junction capacitance (Note1)	$C_J$	50.0							pF
Typical thermal resistance	$R_{qJA}$	47.0							$^{\circ}C/W$
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +150							$^{\circ}C$

**Note:**1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

»Typical Performance Characteristics ((T<sub>J</sub> = 25 °C, unless otherwise noted))

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

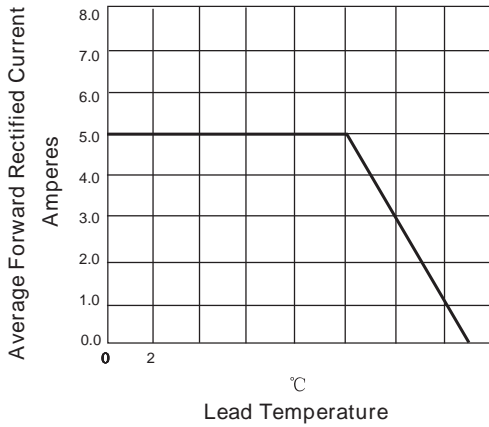


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

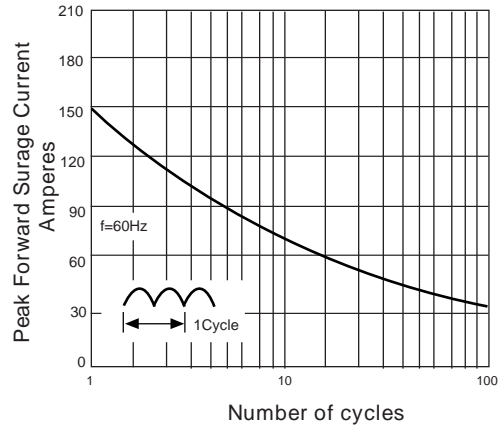


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

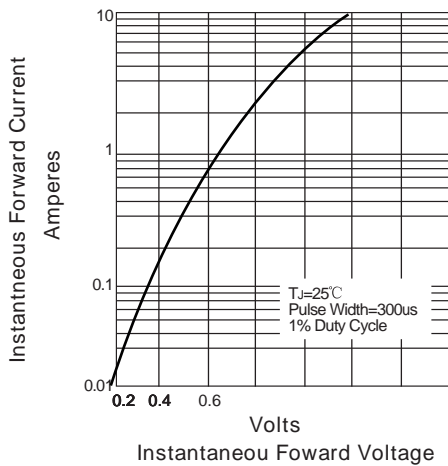
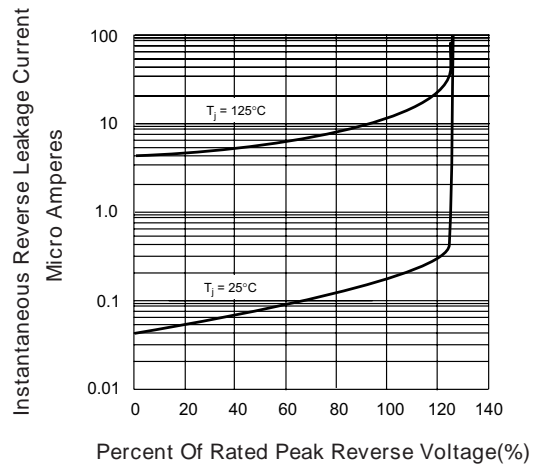
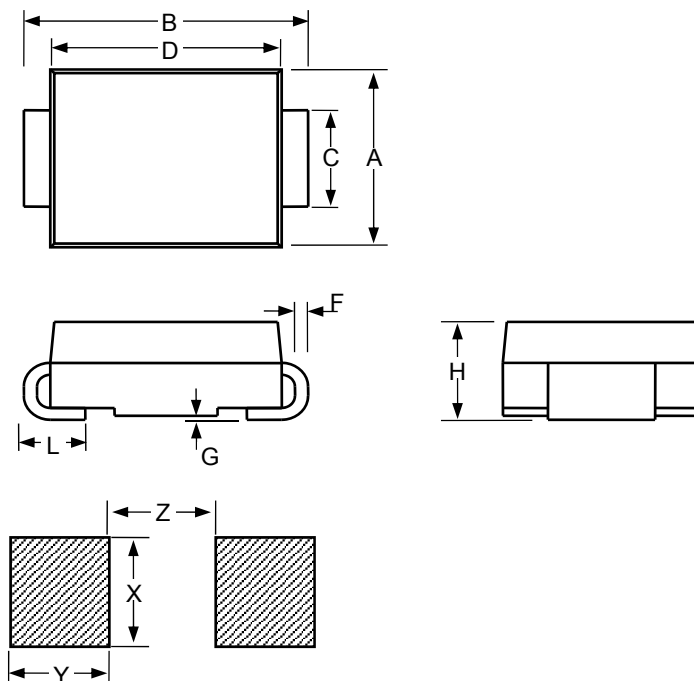


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



»Package Information

SMC



SMC						
Dimension	Inches			Millimeters		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.22		0.245	5.59		6.22
B	0.305		0.32	7.75		8.13
C	0.114		0.126	2.9		3.2
D	0.26		0.28	6.6		7.11
F	0.006		0.012	0.15		0.305
G	-		0.008	-		0.203
H	0.087		0.11	2.2		2.8
L	0.03		0.06	0.76		1.52
X		0.15			3.82	
Y		0.119			3.03	
Z		0.151			3.84	

»Ordering information

Part Number	S5A	S5B	S5C	S5D	S5G	S5J	S5M
Marking	S5A	S5B	S5C	S5D	S5G	S5J	S5M
Base qty	3K	3K	3K	3K	3K	3K	3K