

SURFACEMOUNTRECTIFIERS

S5AC--S5MC

FEATURES

- Low profile package
- For surface mounted applications
- High current capability
- Built-in strain relief, ideal for automated placement
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- High temperature soldering: 250°C/10 seconds at terminals



Lead-free



MECHANICAL DATA

- Case: JEDEC DO-214AB, 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

Maximum Ratings (@TA = 25°C unless otherwise specified)

Characteristic	Symbol	S5AC	S5BC	S5DC	S5GC	S5JC	S5KC	S5MC	UNITS
Marking code		S5AC	S5BC	S5DC	S5GC	S5JC	S5KC	S5MC	
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RWS}	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 $T_L=90^\circ\text{C}$	$I_{F(AV)}$	5.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150							A

Thermal Characteristics

Characteristic	Symbol	S5AC	S5BC	S5DC	S5GC	S5JC	S5KC	S5MC	UNITS
Typical junction capacitance	C_J	35.0							p F
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	40.0							°C/W
Operating junction and storage temperature range	$T_J T_{STG}$	-55-----+150							°C

Electrical Characteristics (@TA = 25°C unless otherwise specified)

Characteristic	Symbol	S5AC	S5BC	S5DC	S5GC	S5JC	S5KC	S5MC	UNITS
Maximum Instantaneous Forward Voltage at 5.0A	V_F	1.15							V
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=125^\circ\text{C}$	I_R	10 250							μ A

NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts

2. Thermal resistance from junction to ambient and junction to lead P.C.B. mounted on 0.27"X0.27"(7.0X7.0mm2) copper pad areas



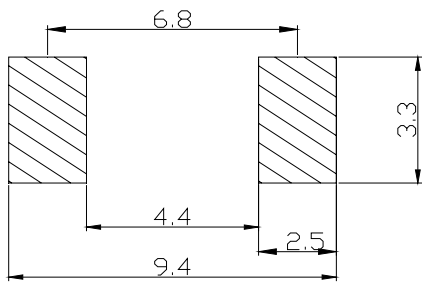
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PACKAGE OUTLINE DIMENSIONS

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
S5AC--S5MC	DO-214AB(SMC)	3000/Tape&Reel



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FIG.1 -- FORWARD DERATING CURVE

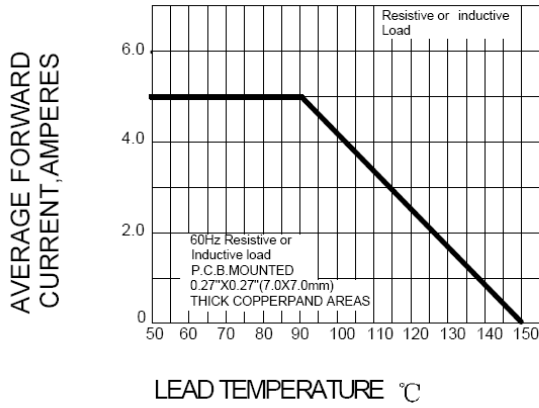


FIG.2 PEAK FORWARD SURGE CURRENT

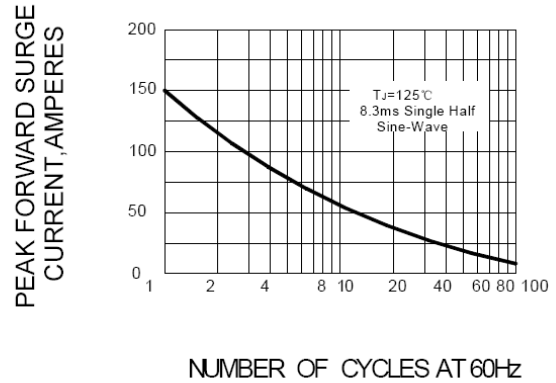


FIG.3 -- TYPICAL FORWARD CHARACTERISTICS

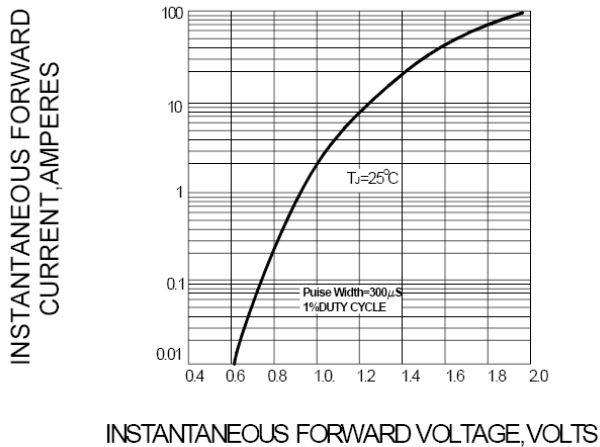


FIG.4 -- TYPICAL REVERSE CHARACTERISTICS

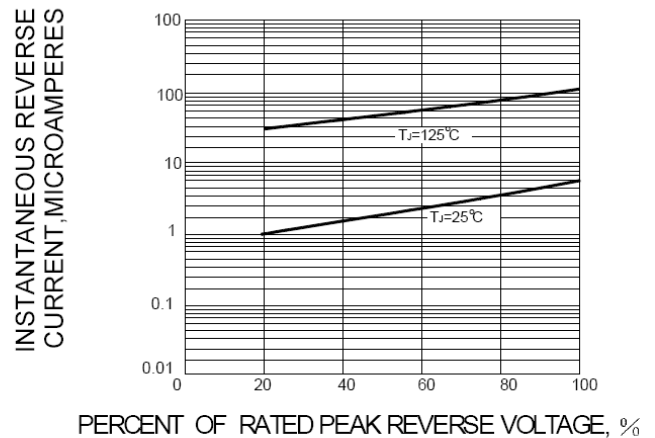


FIG.5-TYPICAL JUNCTION CAPACITANCE

