

## S5ACG THRU S5MCG

Surface Mount General Purpose Silicon Rectifiers Reverse Voltage - 50 to 1000 V Forward Current - 5 A

#### **FEATURES**

- For surface mounted applications
- · Low profile package
- · Glass Passivated Chip Junction
- Easy to pick and place
- Lead free in comply with EU RoHS 2011/65/EU directives

#### **MECHANICAL DATA**

· Case: SMC

• Terminals: Solderable per MIL-STD-750, Method 2026

Approx. Weight: 0.22g / 0.0077oz

#### **PINNING**

PIN	DESCRIPTION				
1	Cathode				
2	Anode				



### Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

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

Parameter	Symbols	S5ACG	S5BCG	S5DCG	S5GCG	S5JCG	S5KCG	S5MCG	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	٧
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	٧
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	I <sub>F(AV)</sub>	5							А
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I <sub>FSM</sub>	120						А	
Maximum Instantaneous Forward Voltage at 5 A	V <sub>F</sub>	1.0						V	
Maximum DC Reverse Current $T_a = 25  ^{\circ}\text{C}$ at Rated DC Blocking Voltage $T_a = 125  ^{\circ}\text{C}$	I <sub>R</sub>	5 100						μA	
Typical Junction Capacitance (1)	C <sub>j</sub>	50						pF	
Typical Thermal Resistance (2)	$R_{ heta_{JA}} \ R_{ heta_{JC}}$	35 13						°C/W	
Operating and Storage Temperature Range	$T_{j},T_{stg}$	-55 ~ +150							°C

<sup>( 1 )</sup> Measured at 1 MHz and applied reverse voltage of 4 V D.C

<sup>(2)</sup> P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.



## S5ACG THRU S5MCG

Fig.1 Forward Current Derating Curve

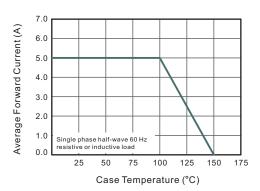


Fig.2 Typical Reverse Characteristics

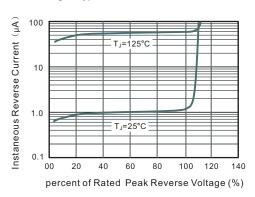


Fig.3 Typical Forward Characteristic

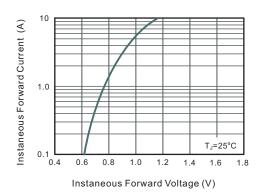


Fig.4 Typical Junction Capacitance

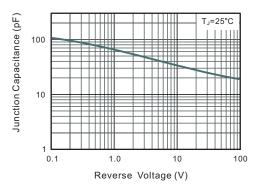
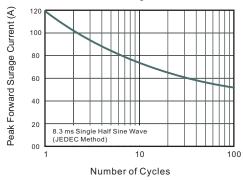


Fig.6 Maximum Non-Repetitive Peak Forward Surage Current

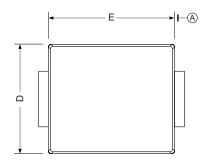




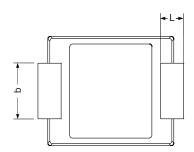
# S5ACG THRU S5MCG

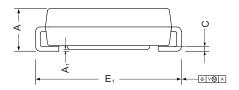
## PACKAGE OUTLINE

### Plastic surface mounted package; 2 leads





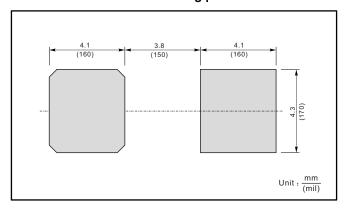




#### SMC mechanical data

UNIT		А	E	D	E <sub>1</sub>	A <sub>1</sub>	С	L	b
mm	max	2.62	7.0	6.2	8.0	0.21	0.31	1.6	3.25
	min	2.00	6.5	5.6	7.6	0.05	0.15	0.9	2.75
mil	max	103	276	244	315	8.3	12	63	128
mil	min	79	256	220	299	2.0	5.9	35	108

### The recommended mounting pad size



### Marking

Type number	Marking code				
S5ACG	S5A				
S5BCG	S5B				
S5DCG	S5D				
S5GCG	S5G				
S5JCG	S5J				
S5KCG	S5K				
S5MCG	S5M				

REV.08 3 of 3

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