PLASTIC SILICON RECTIFIER

VOLTAGE RANGE: 50 --- 1000 V
CURRENT: 5.0A

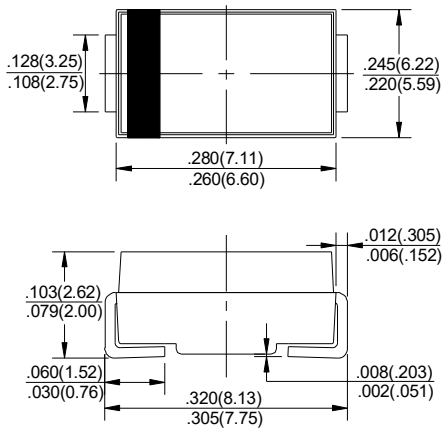
FEATURES

- ◇Plastic package has underwriters laboratory flammability classification 94V-0
- ◇For surface mounted applications
- ◇Low profile package
- ◇Built-in strain relief,ideal for automated placement
- ◇Glass passivated chip junction
- ◇High temperature soldering: 250°C/10 seconds at terminals

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

SMC



Dimensions in inches and (millimeters)

■Maximum Ratings (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	S5A	S5B	S5D	S5G	S5J	S5K	S5M
Device marking code			S5A	S5B	S5D	S5G	S5J	S5K	S5M
Repetitive Peak Reverse Voltage	V_{RRM}	V	50	100	200	400	600	800	1000
Average Rectified Output Current @60Hz sine wave, Resistance load, Ta (FIG.1)	I_O	A	5.0						
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Ta=25℃	I_{FSM}	A	120						
Storage Temperature	Tstg	℃	-55 ~+150						
Junction Temperature	Tj	℃	-55 ~+150						

■Electrical Characteristics (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	S5A	S5B	S5D	S5G	S5J	S5K	S5M
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=5.0A	1.1						
Maximum DC reverse current at rated DC blocking voltage per diode	I_R	μA	Ta=25℃	5						
			Ta=100℃	50						
Typical junction capacitance	Cj	pF	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C.	35						

■Thermal Characteristics (Ta=25℃ Unless otherwise specified)

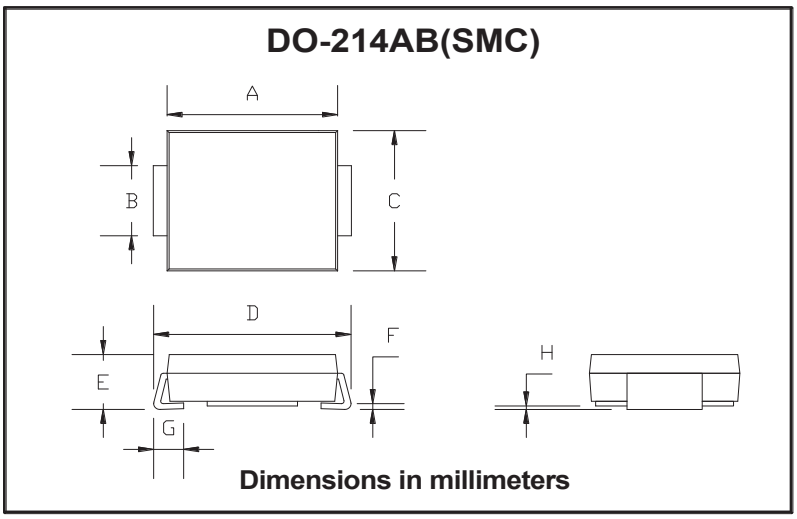
PARAMETER		SYMBOL	UNIT	S5A	S5B	S5D	S5G	S5J	S5K	S5M
Thermal Resistance	Junction to ambient	$R_{\theta J-A}$	℃/W	47[1)]						
	Junction to lead	$R_{\theta J-L}$		13[1)]						

Note(1)
Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.6" x 0.6" (16 mm x 16 mm) copper pad areas

■Ordering Information (Example)

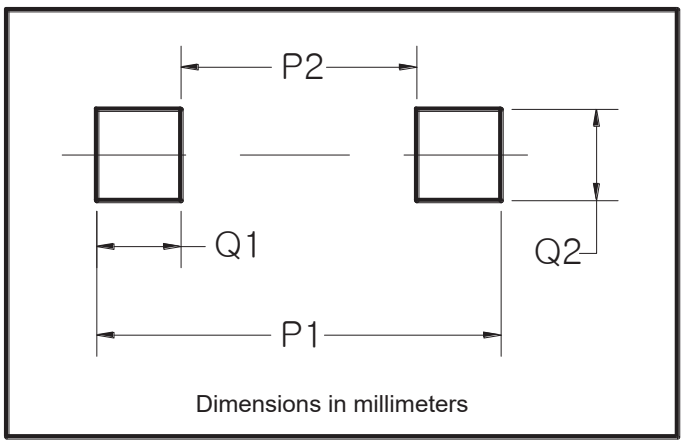
PREFERED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
S5A ~ S5M	F1	Approximate 0.254	3000	6000	42000	13" reel

■ Outline Dimensions



DO-214AB (SMC)		
Dim	Min	Max
A	6.60	7.11
B	2.85	3.27
C	5.59	6.22
D	7.75	8.13
E	1.99	2.61
F	0.15	0.31
G	0.76	1.52
H	0.10	0.20

■ Suggested pad layout



Dim	Typ
P1	9.9
P2	3.84
Q1	3.03
Q2	3.82

FIG.1: Io-TL Curve

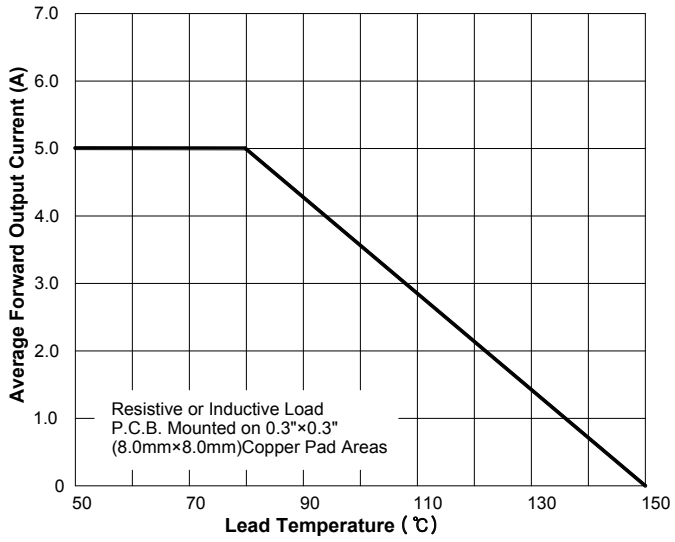


FIG.2: Forward Surge Currrent Capability

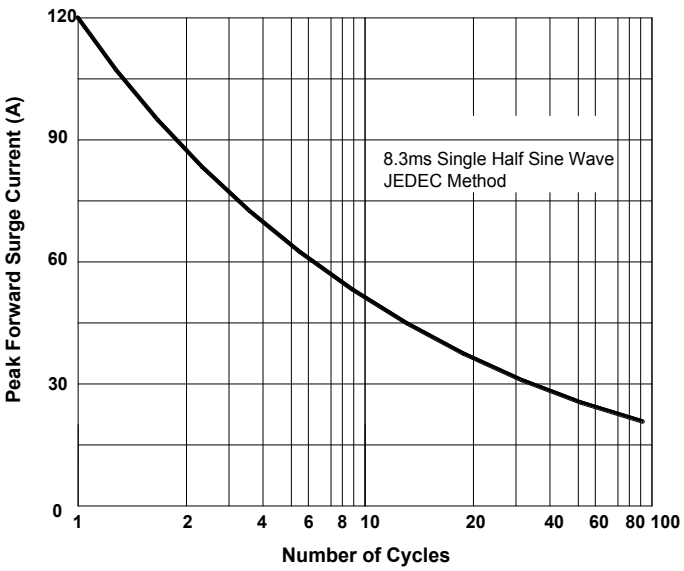


FIG.3: Forward Voltage

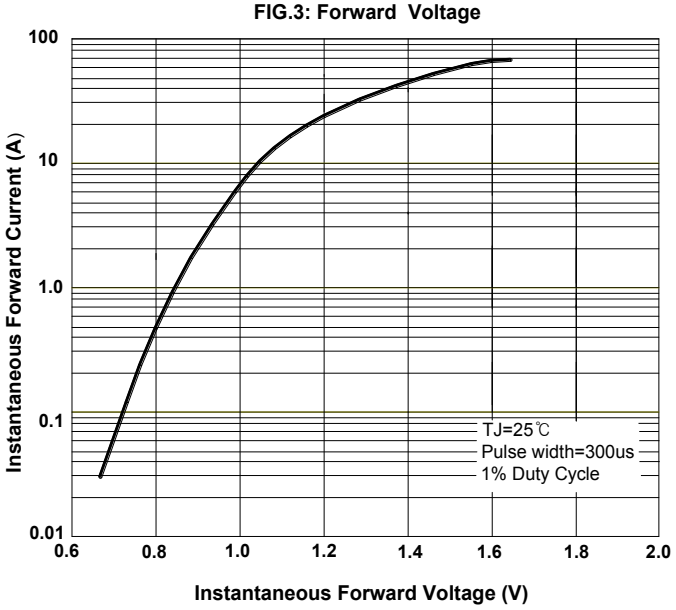


FIG.4: Typical Reverse Characteristics

