

2A, 50V - 1000V Surface Mount Rectifiers

FEATURES

- Glass passivated chip junction
- Ideal for automated placement
- Low forward voltage drop
- High surge current capability
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition







DO-214AC (SMA)

MECHANICAL DATA

Case: DO-214AC (SMA)

Molding compound, UL flammability classification rating 94V-0

Moisture sensitivity level: level 1, per J-STD-020 Part no. with suffix "H" means AEC-Q101 qualified

Packing code with suffix "G" means green compound (halogen-free) **Terminal:** Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 2 whisker test **Polarity:** Indicated by cathode band **Weight:** 0.06 g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)									
	SYMBOL	S2	S2	S2	S2	S2	S2	S2	UNIT
PARAMETER		AA	ВА	DA	GA	JA	KA	MA	
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	I _{F(AV)}	1.5					Α		
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	50				Α			
Maximum instantaneous forward voltage (Note 1) @ 1.5 A	V _F	1.1				٧			
Maximum reverse current @ rated V_R $T_J=25^{\circ}C$ $T_J=125^{\circ}C$	I _R	5 125					μA		
Typical reverse recovery time (Note 2)	t _{rr}	1.5					μs		
Typical junction capacitance (Note 3)	CJ	30				pF			
Typical thermal resistance	$R_{\theta JL}$	16				°C/W			
	$R_{\theta JA}$	53							
Operating junction temperature range	T _J	- 55 to +150				°C			
Storage temperature range	T_{STG}	- 55 to +150				°C			

Note 1: Pulse test with PW=300µs, 1% duty cycle

Note 2: Reverse Recovery Test Conditions: I_F =0.5A, I_R =1.0A, I_{RR} =0.25A

Note 3: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

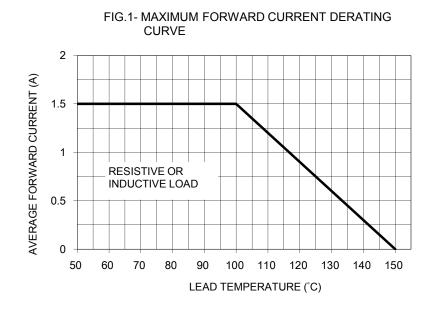


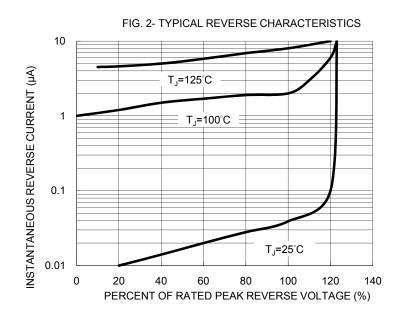
ORDERING INFORMATION					
PART	PART NO.	PACKING CODE	PACKING CODE	PACKAGE	PACKING
NO.	SUFFIX		SUFFIX		
		R3		SMA	1,800 / 7" Plastic reel
		R2		SMA	7,500 / 13" Paper reel
S2xA	Н	M2	G	SMA	7,500 / 13" Plastic reel
(Note 1)	11	F3	G	Folded SMA	1,800 / 7" Plastic reel
		F2		Folded SMA	7,500 / 13" Paper reel
		F4		Folded SMA	7,500 / 13" Plastic reel

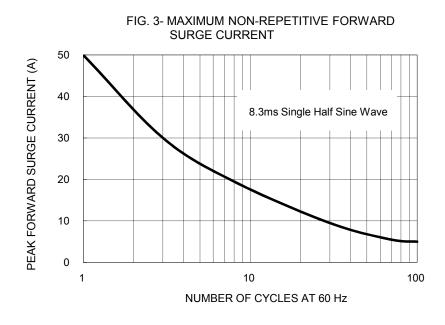
Note 1: "x" defines voltage from 50V (S2AA) to 1000V (S2MA)

EXAMPLE					
PREFERRED PART NO.	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
S2MAHR3G	S2MA	Н	R3	G	AEC-Q101 qualified Green compound

RATINGS AND CHARACTERISTICS CURVES (T_A=25°C unless otherwise noted)







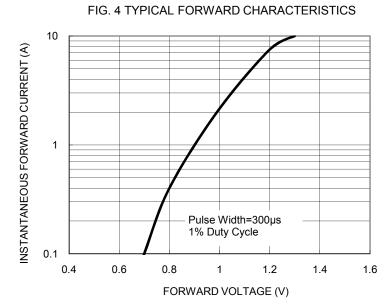






FIG. 5 TYPICAL JUNCTION CAPACITANCE

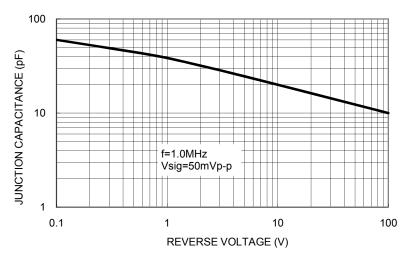
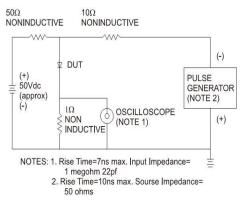
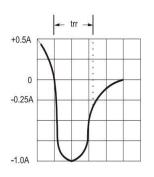


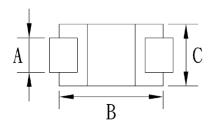
FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM





PACKAGE OUTLINE DIMENSIONS

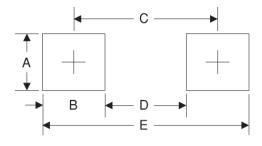
DO-214AC (SMA)



Н	
\mathbf{D}	
EG	
F	

DIM.	Unit (mm)		Unit (inch)		
DIIVI.	Min	Max	Min	Max	
Α	1.27	1.58	0.050	0.062	
В	4.06	4.60	0.160	0.181	
С	2.29	2.83	0.090	0.111	
D	1.99	2.50	0.078	0.098	
Е	0.90	1.41	0.035	0.056	
F	4.95	5.33	0.195	0.210	
G	0.10	0.20	0.004	0.008	
Н	0.15	0.31	0.006	0.012	

SUGGESTED PAD LAYOUT



Symbol	Unit (mm)	Unit (inch)
Α	1.68	0.066
В	1.52	0.060
С	3.93	0.155
D	2.41	0.095
E	5.45	0.215

MARKING DIAGRAM



P/N = Specific Device Code
G = Green Compound
YW = Date Code
F = Factory Code



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