

0.8A, 50V - 1000V Surface Mount Fast Recovery Rectifiers

FEATURES

- Glass passivated junction chip
- Ideal for automated placement
- Fast switching for high efficiency
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



Case: Sub 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:** 0.019 g (approximately)



Sub SMA





MAXIMUM RATINGS AND ELECTRICAL CHAR	ACTERISTI	CS (T _A	=25°C ι	unless o	otherwis	e noted	d)		
PARAMETER	SYMBOL	RS1	RS1	RS1	RS1	RS1	RS1	RS1	UNIT
PARAIVIETER	STIVIBUL	AL	BL	DL	GL	JL	KL	ML	
Marking code		RAL	RBL	RDL	RGL	RJL	RKL	RML	
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	ward rectified current I _{F(AV)} 0.8		Α						
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	30			Α				
Maximum instantaneous forward voltage (Note 1) @ 0.8 A	V _F	1.3			V				
Maximum reverse current @ rated V_R T_J =25°C T_J =125°C	I _R	5 50		μA					
Typical junction capacitance (Note 2)	C _J	10		pF					
Maximum reverse recovery time (Note 3)	t _{rr}	150 250 500		00	ns				
Typical thermal resistance	$R_{ hetaJL} \ R_{ hetaJA}$	32 105					°C/W		
Operating junction temperature range	TJ	- 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: Measured at 1 MHz and Applied VR=4.0 Volts.

Note 3: Reverse Recovery Test Conditions: I_F =0.5A, I_R =1.0A, I_{RR} =0.25A



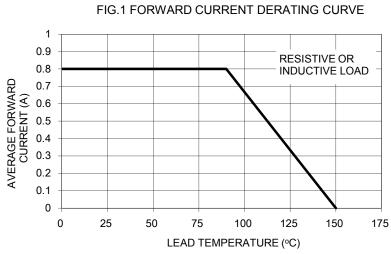
ORDERING INFORMATION					
PART NO.	PART NO.	PACKING CODE	PACKING CODE	PACKAGE	PACKING
	SUFFIX		SUFFIX		
		RU		Sub SMA	1,800 / 7" Plastic reel (8mm tape)
	RV		Sub SMA	3,000 / 7" Plastic reel (8mm tape)	
		RT		Sub SMA	7,500 / 13" Paper reel (8mm tape)
RS1xL	MT		Sub SMA	7,500 / 13" Plastic reel (8mm tape)	
	RQ		Sub SMA	10,000 / 13" Paper reel (8mm tape)	
	Н	MQ	G	Sub SMA	10,000 / 13" Plastic reel (8mm tape)
(Note 1)	П	R3		Sub SMA	1,800 / 7" Plastic reel (12mm tape)
		RF		Sub SMA	3,000 / 7" Plastic reel (12mm tape)
		R2		Sub SMA	7,500 / 13" Paper reel (12mm tape)
			M2		Sub SMA
		RH		Sub SMA	10,000 / 13" Paper reel (12mm tape)
		MH		Sub SMA	10,000 / 13" Plastic reel (12mm tape)

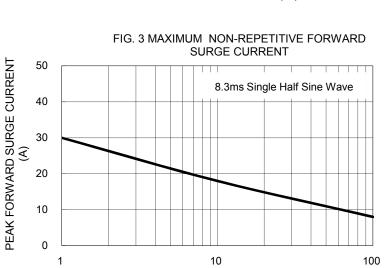
Note 1: "x" defines voltage from 50V (RS1AL) to 1000V (RS1ML)

EXAMPLE					
PREFERRED PART NO.	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
RS1MLHRUG	RS1ML	Н	RU	G	AEC-Q101 qualified Green compound

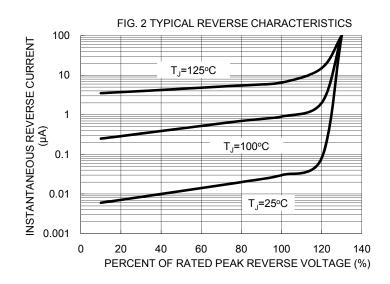
RATINGS AND CHARACTERISTICS CURVES

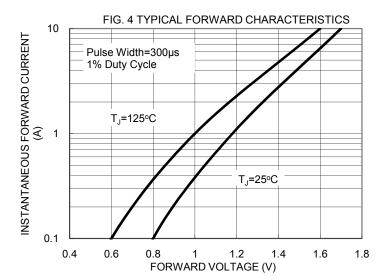
(T_A=25°C unless otherwise noted)





NUMBER OF CYCLES AT 60 Hz









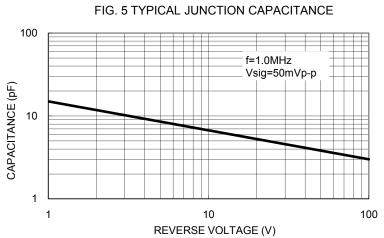
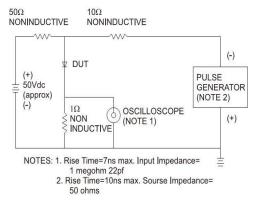
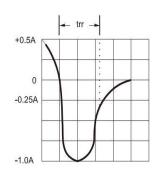


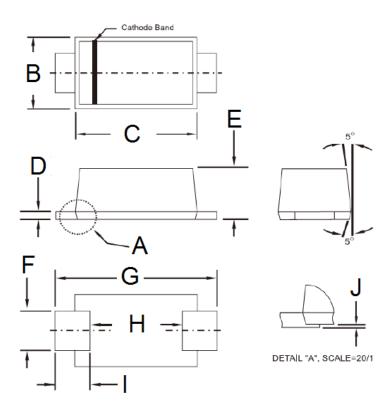
FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM





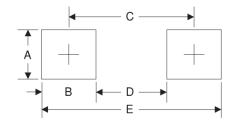
PACKAGE OUTLINE DIMENSIONS

Sub SMA



DIM.	Unit	(mm)	Unit (inch)		
DIIVI.	Min	Max	Min	Max	
В	1.70	1.90	0.067	0.075	
С	2.70	2.90	0.106	0.114	
D	0.16	0.30	0.006	0.012	
Е	1.23	1.43	0.048	0.056	
F	0.80	1.20	0.031	0.047	
G	3.40	3.80	0.134	0.150	
Н	2.45	2.60	0.096	0.102	
I	0.35	0.85	0.014	0.033	
J	0.00	0.10	0.000	0.004	

SUGGESTED PAD LAYOUT



F

Symbol	Unit (mm)	Unit (inch)
Α	1.4	0.055
В	1.2	0.047
С	3.1	0.122
D	1.9	0.075
Е	4.3	0.169

MARKING DIAGRAM



P/N = Marking Code

G = Green compound Code

= Factory Code

YW = Date Code

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