



1A, 200V - 1000V High Efficient Surface Mount Rectifiers

FEATURES

- Glass passivated junction chip
- Ideal for automated placement
- Low profile package
- Low power loss, 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

MECHANICAL DATA

Case: SOD-123W

Molding compound: UL flammability classification rating 94V-0 Moisture sensitivity level (MSL): 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: 0.016 g (approximately)





SOD-123W



MAXIMUM RATINGS AND ELECTRICAL CHA	NACTENTS	1103 (1 _A -2	Unices C	THICK WISC TIO	icu)		
PARAMETER	SYMBOL	HS1DLW	HS1GLW	HS1JLW	HS1KLW	HS1MLW	UNIT
Marking code		HDLW	HGLW	HJLW	HKLW	HMLW	
Maximum repetitive peak reverse voltage	V_{RRM}	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	200	400	600	800	1000	V
Maximum average forward rectified current	I _{F(AV)}	1					Α
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	30		А			
Maximum instantaneous forward voltage (Note 1) @ 1 A	V _F	1.0	1.3		1.7		V
Maximum rayaraa aurrant @ ratad \/	1	1					μA
Maximum reverse current @ rated V_R $T_J=125^{\circ}C$	I _R	150					
Maximum reverse recovery time (Note 2)		50 75			ns		
Typical junction capacitance (Note 3)	CJ		16		-	7	pF
Typical thermal resistance	$R_{ heta JL} \ R_{ heta JA}$	25 80		°C/W			
Operating junction temperature range	T _J	- 55 to +175				°C	
Storage temperature range	T _{STG}	- 55 to +175				°C	

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

Note 2: 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 DC.



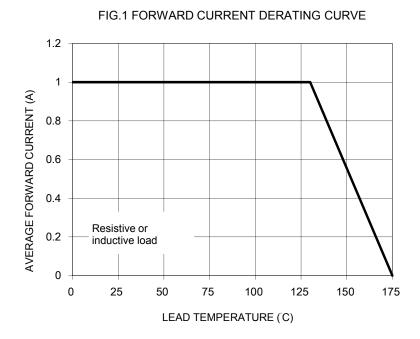
ORDERING INFORMATION					
PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
HS1xLW		RV	G	SOD-123W	3,000 / 7" Plastic reel
(Note 1, 2)	'''	RQ	G	30D-123VV	10,000 / 13" Paper reel

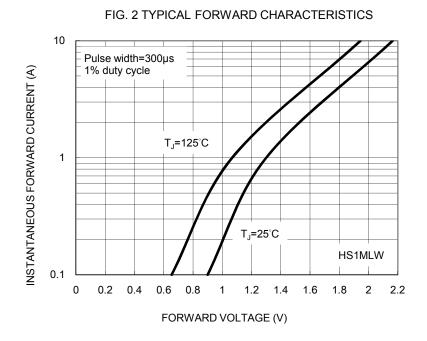
Note 1: "x" defines voltage from 200V (HS1DLW) to 1000V (HS1MLW)

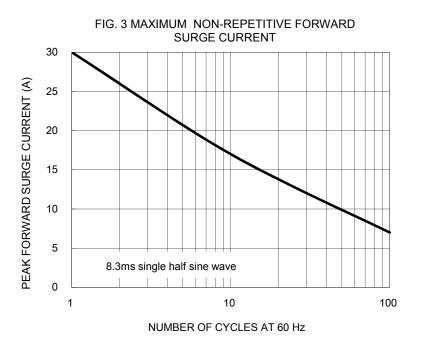
Note 2: Whole series with green compound (halogen-free)

EXAMPLE					
EXAMPLE P/N	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
HS1JLWHRVG	HS1JLW	Н	RV	G	AEC-Q101 qualified Green compound

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







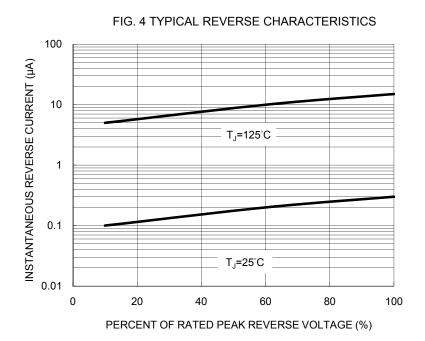
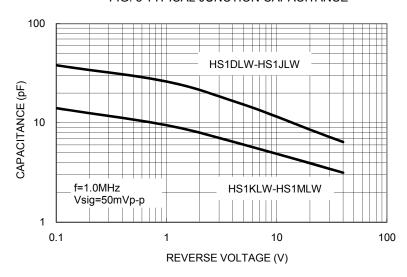


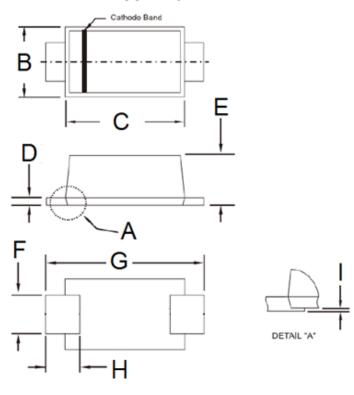


FIG. 5 TYPICAL JUNCTION CAPACITANCE



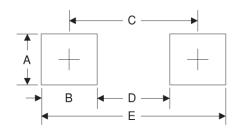
PACKAGE OUTLINE DIMENSIONS

SOD-123W



DIM.	Unit	(mm)	Unit (inch)		
DIN.	Min	Max	Min	Max	
В	1.70	1.90	0.067	0.075	
С	2.60	2.90	0.102	0.114	
D	0.10	0.22	0.004	0.009	
Е	0.90	1.02	0.035	0.040	
F	0.90	1.05	0.035	0.041	
G	3.60	3.80	0.142	0.150	
Н	0.50	0.85	0.020	0.033	
I	0.00	0.10	0.000	0.004	

SUGGESTED PAD LAYOUT



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

YW = Date Code

F = Factory Code





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