

HS1A THRU HS1M

High Efficient Rectifier Diode

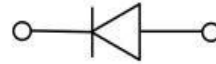
Features

- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- High frequency
- High forward surge capability
- Meets MSL level 1, per J-STD-020,LF maximum peak of 260 °C



Typical Application

For use in high frequency rectification of power supply, inverters, converters, and freewheeling diodes for consumer and telecommunication.



Mechanical Data

- Package: DO-214AC(SMA)
Molding compound meets UL 94 V-0 flammability rating,RoHS-compliant
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity: Cathode line denotes the cathode end

Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	Symbol	Unit	Conditions	HS1							
				A	B	D	F	G	J	K	M
Repetitive Peak Reverse Voltage	V_{RRM}	V		50	100	200	300	400	600	800	1000
Average Forward Current	$I_{F(AV)}$	A		1.0							
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60HZ sine wave, 1 cycle, Ta=25°C	30							
Storage Temperature	T_{stg}	°C		-55 ~ +150							
Junction Temperature	T_j	°C		-55 ~ +150							

Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	Symbol	Unit	Conditions	HS1					
				A	B	D	F	G	J
Peak Forward Voltage	V_{FM}	V	$I_F = 1.0A$	1.0		1.3		1.7	
Peak Reverse Current	I_{RRM1}	μA	$V_{RM} = V_{RRM}$	10					
	I_{RRM2}			100					
Maximum reverse recovery time	T_{rr}	ns	$I_F = 0.5A$ $I_R = 1A$ $I_{RR} = 0.25A$	50				75	
Thermal Resistance(Typical)	$R_{\theta J-A}$	°C/W	Between junction and ambient	75 ¹⁾					
	$R_{\theta J-L}$		Between junction and terminal	27 ¹⁾					

Notes:

1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas.



HS1A THRU HS1M

■ Characteristics (Typical)

FIG1: Forward Current Derating Curve

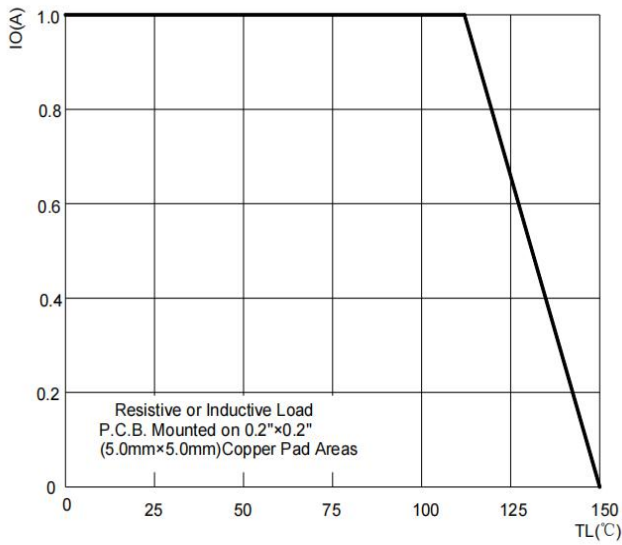


FIG2: Surge Forward Current Capability

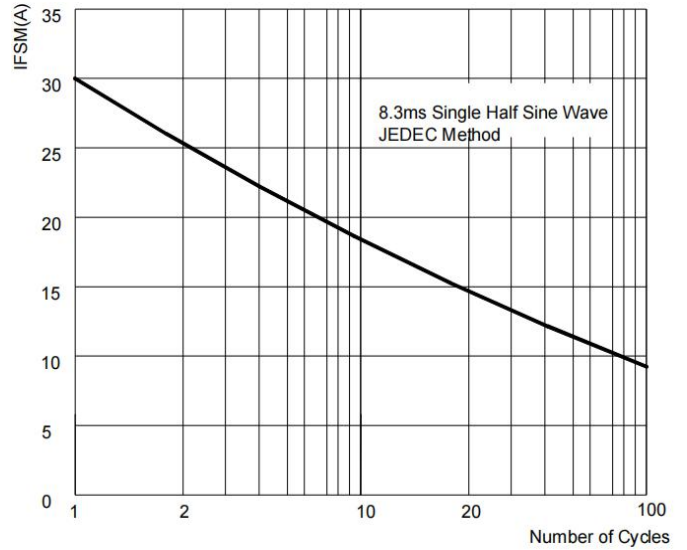


FIG3: Instantaneous Forward Voltage

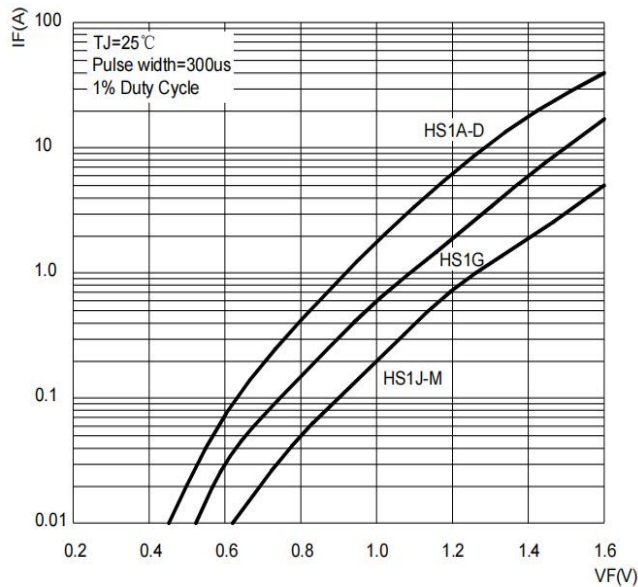


FIG4: Typical Reverse Characteristics

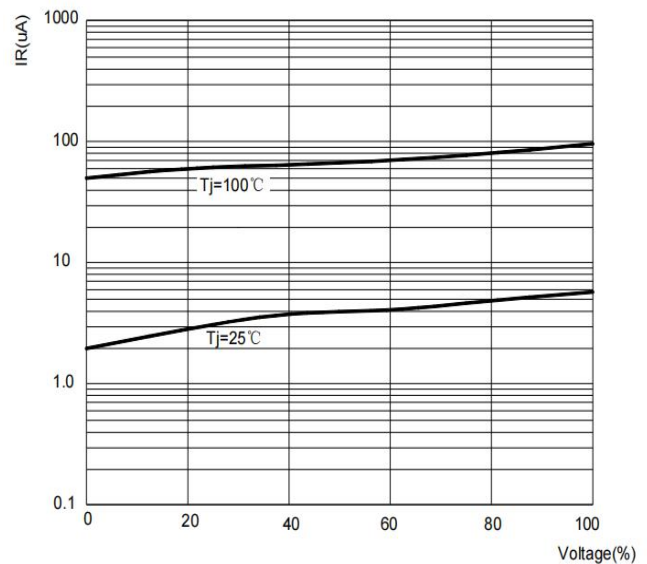
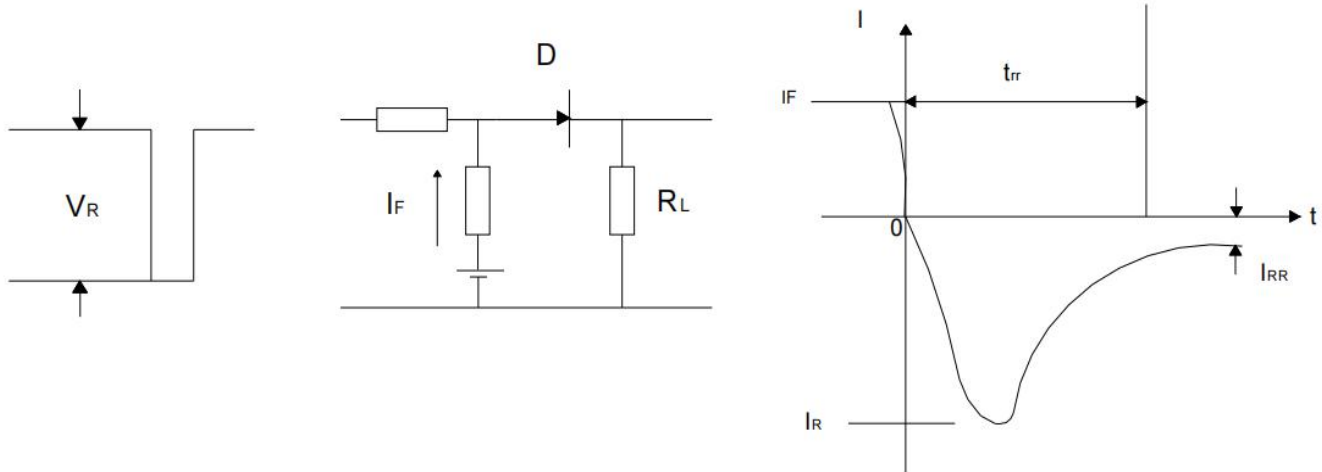


FIG5: Diagram of circuit and Testing wave form of reverse recovery time



HS1A THRU HS1M

Ordering Information (Example)

PREFERED	PACKAGE CODE	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
HS1A ~ HS1M	DO-214AC(SMA)	5000	10000	80000	13" reel
HS1A ~ HS1M	DO-214AC(SMA)	7500	15000	120000	13" reel

Outline Dimensions

