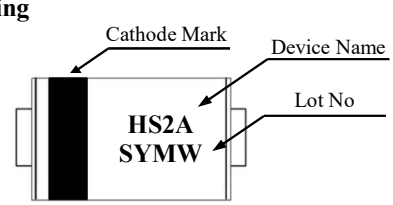
High Efficient Surface Mount Rectifiers
Reverse Voltage 50 to 1000 Volts Forward Current 2.0 Amperes

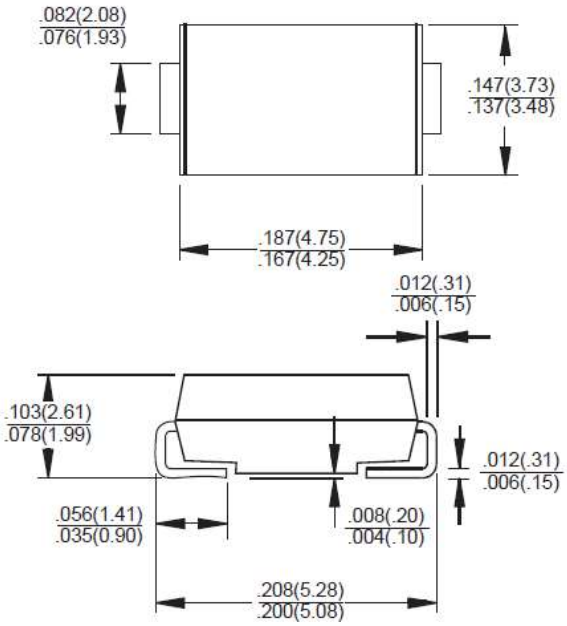
Features
- For surface mounted application
- Glass passivated junction chip
- Low forward voltage drop
- Low profile package
- Built-in stain relief, ideal for automatic placement
- Fast switching for high efficiency
- Plastic material used carries underwriters laboratory classification 94V-O
- High temperature soldering : 260℃ /10 seconds at terminals

Mechanical Data
- Case : Molded plastic
- Terminals : Solder plated
- Polarity : Indicated by cathode band
- Packaging : 12mm tape per EIA STD RS-481
- Weight : 0.093gram

Marking



SMB/DO-214AC



Dimensions in inches and (millimeters)

Maximum Ratings & Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified
Single phase half wave 60 Hz, resistive or inductive load
For capacitive load, derate current by 20%

Parameter	Symbol	HS2A	HS2B	HS2D	HS2F	HS2G	HS2J	HS2K	HS2M	Unit	Remark
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	600	800	1000	V	
Maximum RMS Voltage	V_{RMS}	35	70	140	210	280	420	560	700	V	
Maximum DC Blocking Voltage	V_{DC}	50	100	200	300	400	600	800	1000	V	
Maximum Average Forward Rectified Current See Fig.1	$I_F(AV)$	2.0								A	
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	50								A	
Maximum Instantaneous Forward Voltage @ 2.0A	V_F	1.0				1.3	1.7			V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	5.0								uA	Ta=25℃
		100								uA	Ta=100℃
Maximum Reverse Recovery Time	trr	50					75			ns	Note 1
Typical Junction Capacitance	C_J	50					30			pF	Note 2
Typical Thermal Resistance	Rth(j-a)	80								℃ /W	Note 3
Operation Junction Temperature Range	T_J	-55 to +150								℃	
Storage Temperature Range	T_{STG}	-55 to +150								℃	

Note 1. Reverse Recovery Time Test Conditions : I_F=0.5A, I_R=1.0A, I_{RR}=0.25A
Note 2. Measured at 1MHz and Applied Reverse Voltage of 4.0Volts D.C.
Note 3. Mounted on P.C.B with 0.4"×0.4" (10mm×10mm) Copper Pad Areas

Ratings and Characteristics Curves (Ta=25℃ unless otherwise noted)

Fig.1 Forward Current Derating Curve

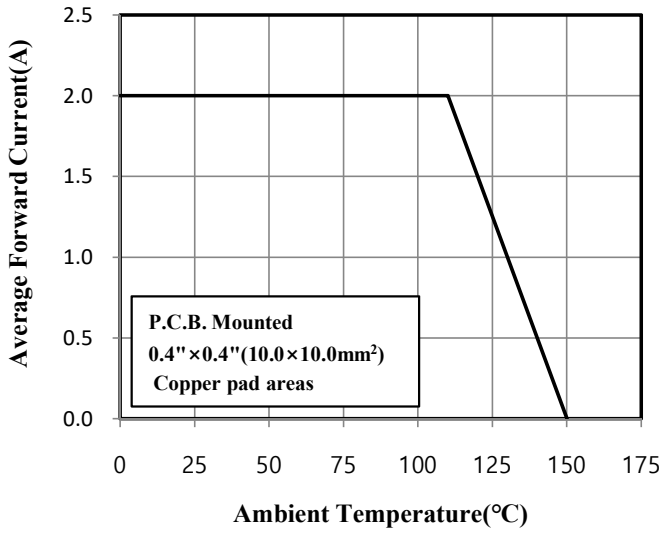


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

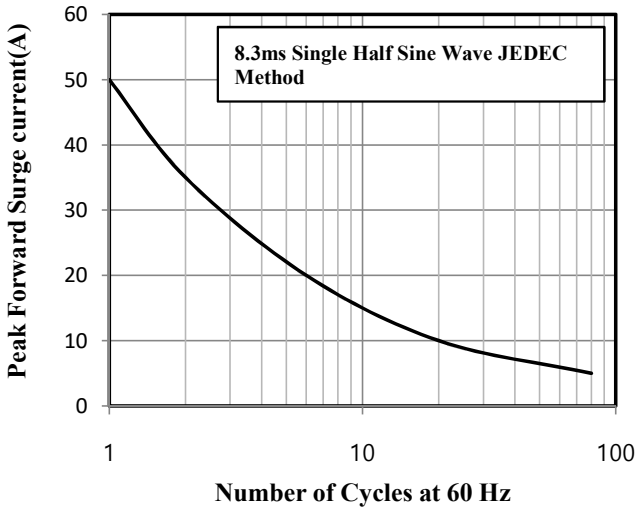


Fig.3 Typical Instantaneous Forward Characteristics

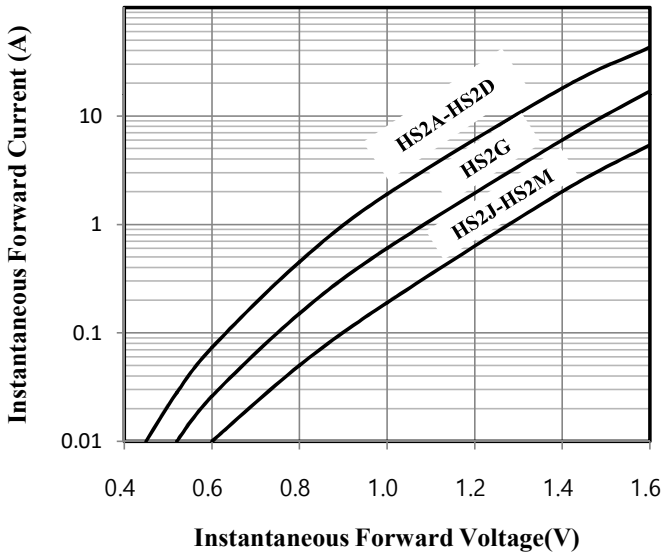


Fig.4 Typical Junction Capacitance

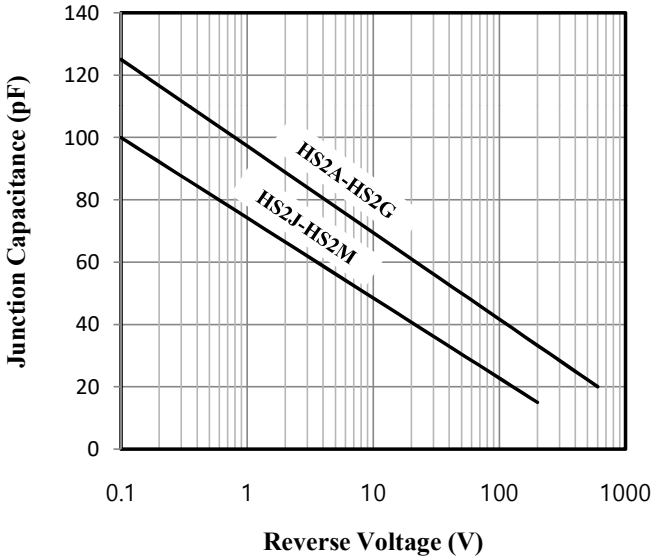


Fig.5 Typical Reverse Charateristics

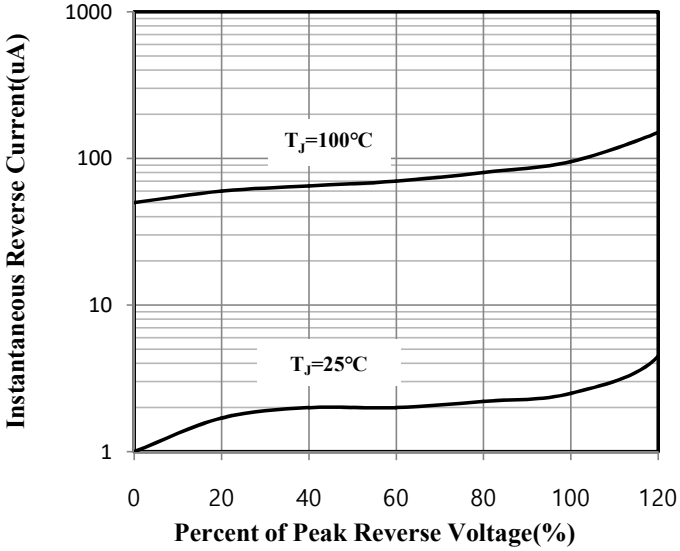


Fig. 6 Reverse Recovery Time Charateristic and Test Circuit Diagram