

# HS2A-HS2M

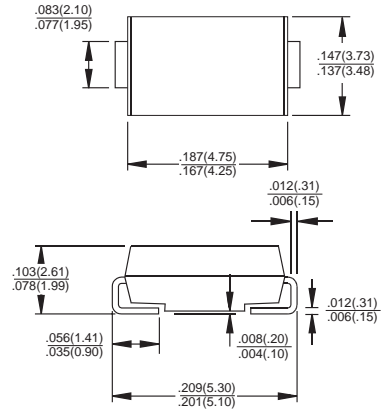
2.0AMP . High Efficient Surface Mount Rectifiers

## SMB/DO-214AA



### Features

- ✧ Glass passivated junction chip.
- ✧ For surface mounted application
- ✧ Low forward voltage drop
- ✧ Low profile package
- ✧ Built-in stain relief, ideal for automatic placement
- ✧ Fast switching for high efficiency
- ✧ High temperature soldering:  
260°C/10 seconds at terminals
- ✧ Plastic material used carries Underwriters  
Laboratory Classification 94V0



### Mechanical Data

- ✧ Cases: Molded plastic
- ✧ Terminals: Pure tin plated, lead free
- ✧ Polarity: Indicated by cathode band
- ✧ Packing: 12mm tape per
- ✧ Weight: 0.093 gram

Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	Symbol	HS 2A	HS 2B	HS 2D	HS 2F	HS 2G	HS 2J	HS 2K	HS 2M	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	400	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	$I_{(AV)}$	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 @ $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$	$I_R$	5.0				150				uA uA
Maximum Reverse Recovery Time ( Note 1 )	$T_{rr}$	50				75				nS
Typical Junction Capacitance ( Note 2 )	$C_j$	50				30				pF
Maximum Thermal Resistance (Note 3)	$R_{\theta JA}$	80								°C/W
Operating Temperature Range	$T_J$	-55 to +150								°C
Storage Temperature Range	$T_{STG}$	-55 to +150								°C

- Notes:
1. Reverse Recovery Test Conditions:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $IRR=0.25A$
  2. Measured at 1 MHz and Applied  $V_R=4.0$  Volts.
  3. Mounted on P.C.Board with 0.4" x 0.4" (10mm x 10mm) Copper Pad Area.

### RATINGS AND CHARACTERISTIC CURVES (HS2A THRU HS2M)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

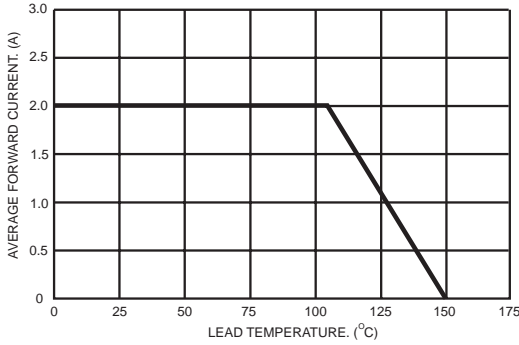


FIG.2- TYPICAL REVERSE CHARACTERISTICS

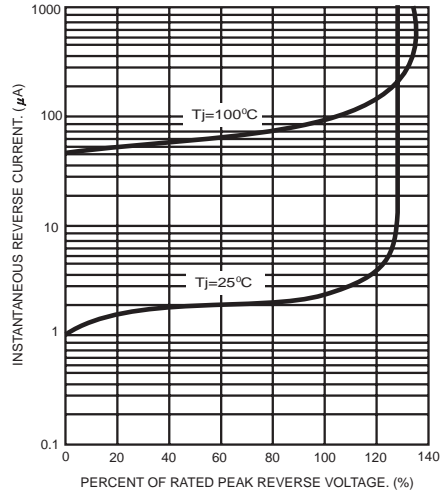


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

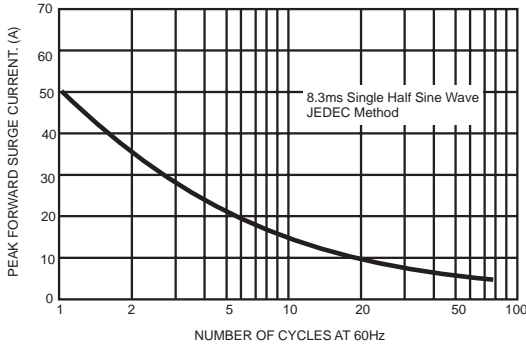


FIG.5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

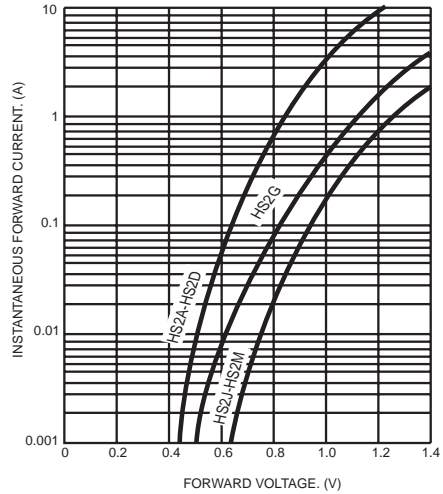


FIG.4- TYPICAL JUNCTION CAPACITANCE

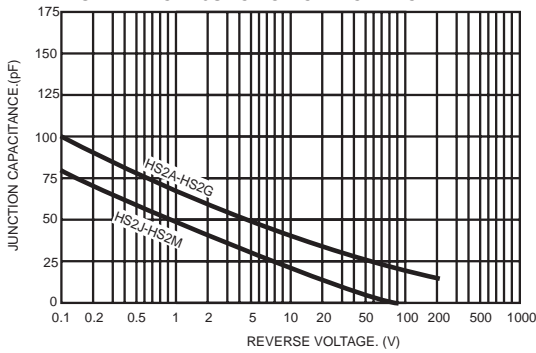


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

