Technical Data *Green Products*
Data Sheet N1692, Rev. -

RS2A-RS2M FAST RECOVERY RECTIFIERS
Surface Mount – 2A

Features:

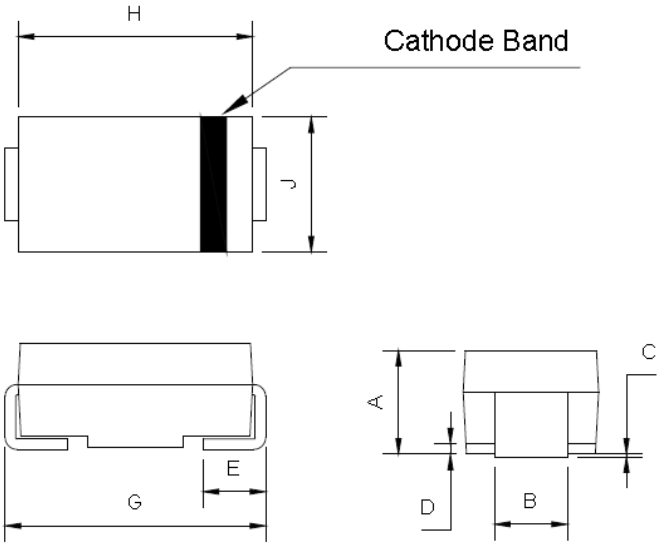
- **Fast switching for high efficiency**
- **Low leakage current**
- **High forward surge capability**
- **Solder dip 260 °C, 40 s**
- **Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC**

Mechanical Data:

- **Case: SMB molded plastic body**
- **Terminals: Solder plated, solderable per MIL-STD-750, Method 2026**
- **Polarity: Color band denotes cathode end**
- **Mounting Position: Any**
- **Weight: 0.09 grams**

RS2A

Mechanical Dimensions: In mm / Inches



DIMENSIONS					
DIM	INCHES		MM		NOTE
	NMI	MAX	NMI	MAX	
A	0.083	0.096	2.13	2.44	
B	0.075	0.083	1.91	2.11	
C	0.002	0.008	0.051	0.203	
D	——	0.02	——	0.51	
E	0.030	0.060	0.76	1.52	
G	0.150	0.220	4.80	5.59	
H	0.160	0.185	4.06	4.70	
J	0.130	0.155	3.30	3.94	

SMB

MARKING, MOLDING RESIN
Marking for RS2A/B/C/D/G/J/M, 1st row RS2A/B/C/D/G/J/M, 2nd row SSG YYWWL
Where YY is the manufacture year
WW is the manufacture week code
L is the wafer's Lot Number

RS2A-RS2M

Technical Data
Data Sheet N1692, Rev. -

Green Products

Ordering Information:

Device	Package	Shipping
RS2A-RS2M	SMB (Pb-Free)	3000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified

Single Phase half wave 60Hz, resistive or inductive load. For capacitive load current derate by 20%.

Characteristic	Symbol	RS2A	RS2B	RS2D	RS2G	RS2J	RS2K	RS2M	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	
Maximum average forward rectified current at T_A = 90°C	$I_{(AV)}$	2.0							V
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50.0							A
Maximum instantaneous forward voltage at 2.0A	V_F	1.3							V
Maximum DC reverse current T_A = 25°C at rated DC blocking voltage T_A = 100°C	I_R	5.0 50.0							μA
Maximum Reverse Recovery Time (Note 1)	Trr	150				250		500	ns
Typical junction capacitance (Note 2)	C_J	50.0							pF
Typical thermal resistance (Note 3)	$R_{\theta JA}$	55.0							°C /W
Operating junction and storage temperature range	T_J,T_{STG}	-65 to +150							°C

Note: 1. Measured with I_F=0.5A, I_R=1.0A, I_{rr}=0.25A,
2. Measured at 1.0 MHZ and applied reverse voltage of 4.0 VDC
3. Thermal resistance from junction to ambient at 0.375”(9.5mm)lead length, P.C.B. mounted

FIG.1-FORWARD CURRENT DERATING CURVE

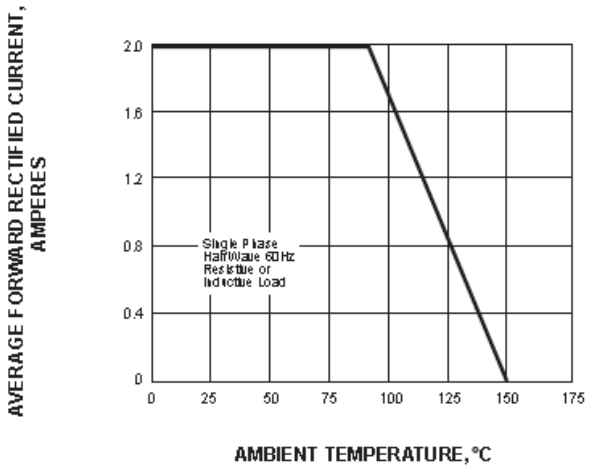


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

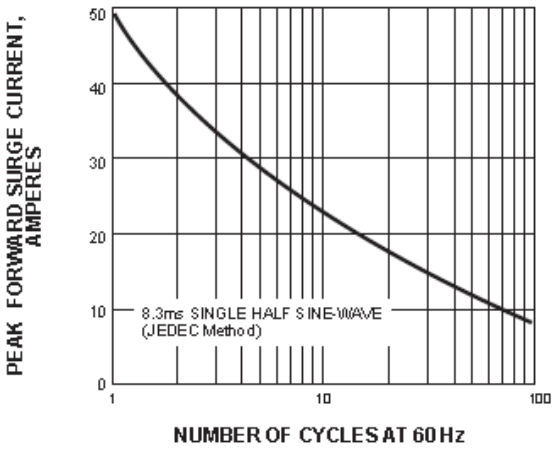


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

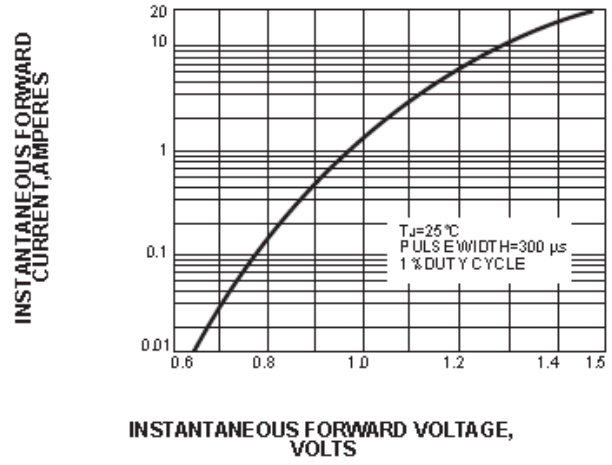
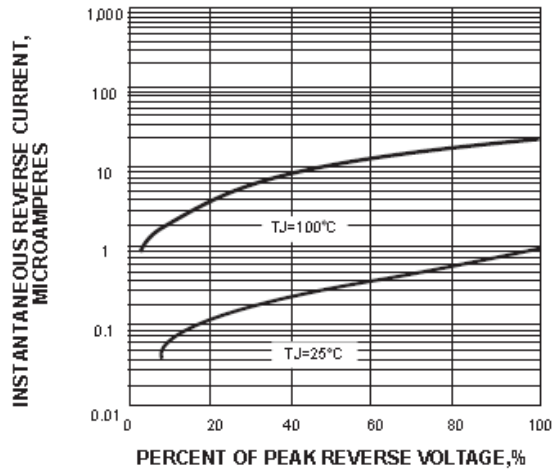


FIG.4-TYPICAL REVERSE CHARACTERISTICS



RS2A-RS2M

Technical Data ***Green Products***

Data Sheet N1692, Rev. -

DISCLAIMER:

1- The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact the SMC - Sangdest Microelectronics (Nanjing) Co., Ltd sales department for the latest version of the datasheet(s).

2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment , and safety equipment) , safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement .

3- In no event shall SMC - Sangdest Microelectronics (Nanjing) Co., Ltd be liable for any damages that may result from an accident or any other cause during operation of the user's units according to the datasheet(s). SMC - Sangdest Microelectronics (Nanjing) Co., Ltd assumes no responsibility for any intellectual property claims or any other problems that may result from applications of information, products or circuits described in the datasheets.

4- In no event shall SMC - Sangdest Microelectronics (Nanjing) Co., Ltd be liable for any failure in a semiconductor device or any secondary damage resulting from use at a value exceeding the absolute maximum rating.

5- No license is granted by the datasheet(s) under any patents or other rights of any third party or SMC - Sangdest Microelectronics (Nanjing) Co., Ltd.

6- The datasheet(s) may not be reproduced or duplicated, in any form, in whole or part, without the expressed written permission of SMC - Sangdest Microelectronics (Nanjing) Co., Ltd.

7- The products (technologies) described in the datasheet(s) are not to be provided to any party whose purpose in their application will hinder maintenance of international peace and safety nor are they to be applied to that purpose by their direct purchasers or any third party. When exporting these products (technologies), the necessary procedures are to be taken in accordance with related laws and regulations..