

**RS2A THRU RS2M**  
**FAST RECOVERY RECTIFIERS**



**VOLTAGE** 50~1000 Volts **CURRENT** 2.0 Amperes

**Marking**

**FEATURES**

- Fast switching for high efficiency
- Low cost
- Diffused junction
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0

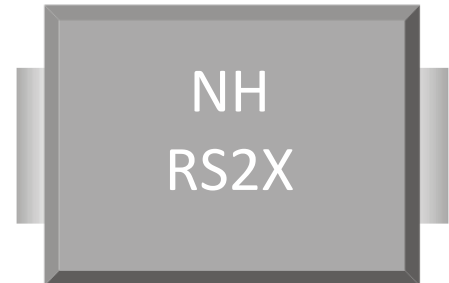
**MECHANICAL DATA**

- **Case:** Molded Plastic
- **Epoxy:** UL 94V-0 rate flame retardant
- **Mounting position:** Any
- **Weight:** 0.003 ounces,0.093 grams

**TYPICAL APPLICATIONS**

- For use in low voltage ,high frequency inverters ,DC/DC converters,LED driver, free wheeling ,and polarity protection applications

DO-214AA(SMB)



**Maximum Ratings and Electrical Characteristics**(Ratings at 25°C ambient temperature unless otherwise specified )

Parameter	Symbol	RS 2A	RS 2B	RS 2D	RS 2G	RS 2J	RS 2K	RS 2M	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward rectified current(see fig.1)	$I_{F(AV)}$	2							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)	$I_{FSM}$	60							A
Maximum instantaneous forward voltage at 5.0 A (Note 1)	$V_F$	1.3							V
Maximum instantaneous reversecurrent at rated DC blockingvoltage (Note 2)	$I_{RRM}$	5 100							uA
Maximum Reverse Recovery Time (Note 3)	$T_{RR}$	150			250		500		nS
Typical junction capacitance (Note 4)	$C_J$	30							pF
Operating junction and Storage temperature range	$T_J$	-65 to +150							°C
Storage temperature range	$T_{STG}$	-65 to +150							

**Thermal Characteristics** (Ratings at 25°C ambient temperature unless otherwise specified )

Parameter	Symbol	RS2A THRU RS2M	Unit
Typical thermal resistance (Note 5)	$R_{\theta JA}$	55	°C/W
	$R_{\theta JL}$	17	

Note: 1.Pulse test: 300 μs pulse width,1% duty cycle

2.Pulse test: pulse width≤40ms

3. Reverse Recovery Time test condition:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{RR}=0.25A$

4.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

5.Thermal resistance from junction to lead vertical P.C.B. mounted , 0.375"(9.5mm)lead length

RS2A THRU RS2M

FAST RECOVERY RECTIFIERS



RATING AND CHARACTERISTIC CURVES

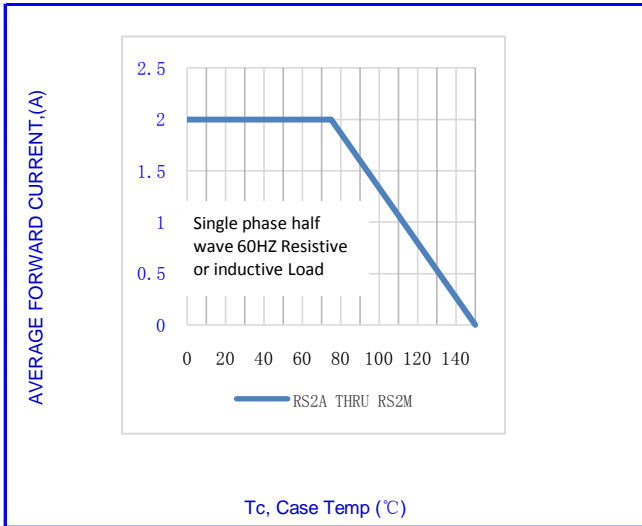


Fig. 1-FORWARD CURRENT DERATING CURVE

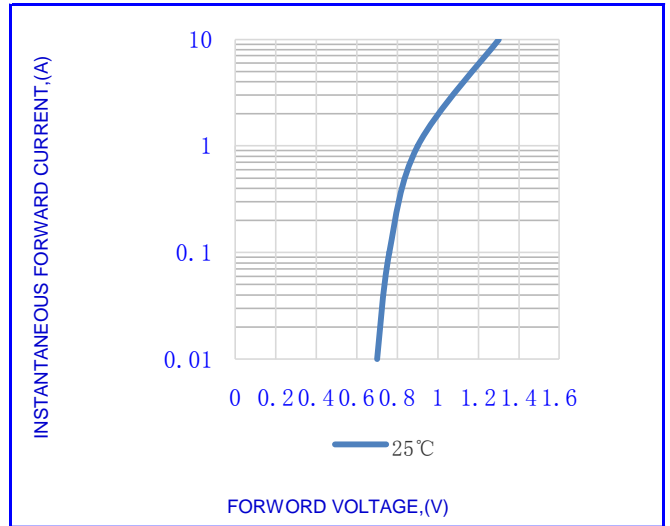


Fig. 2- TYPICAL INSTANTANEOUS FORWARD

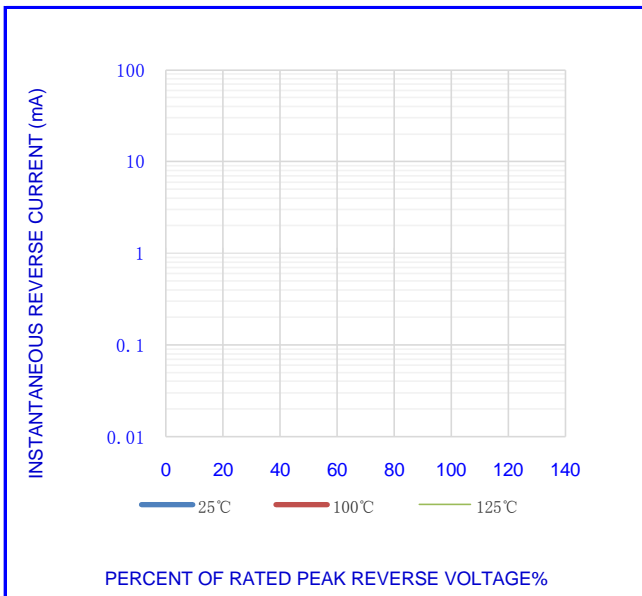


Fig. 3- TYPICAL REVERSE CHARACTERISTICS

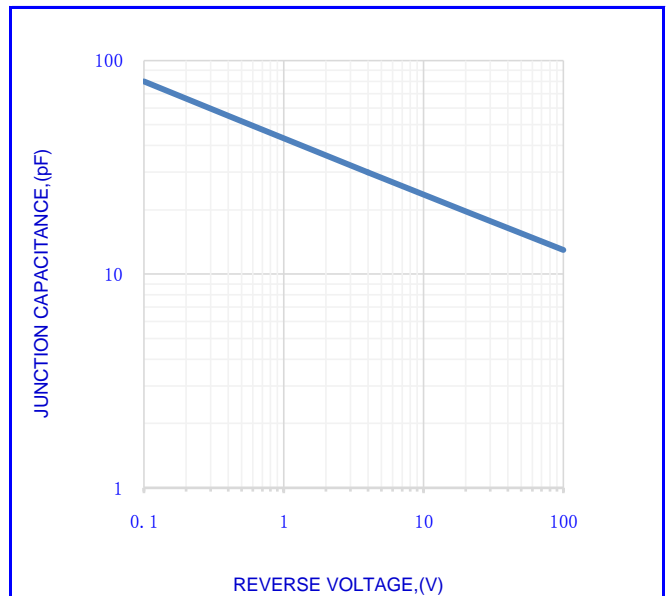


Fig. 4- TYPICAL JUNCTION CAPACITANCE

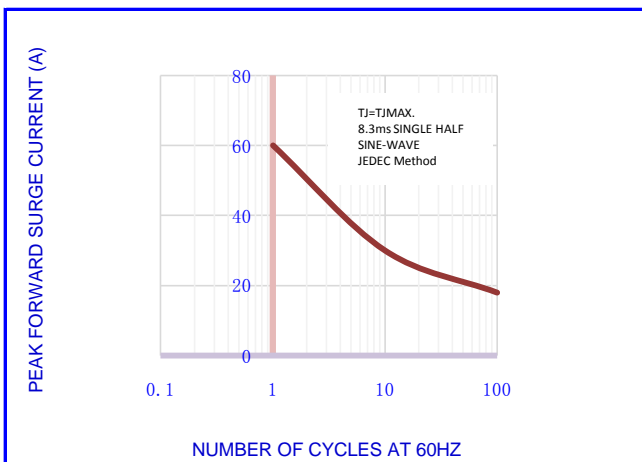


Fig. 5-MAX. NON-REPETITIVE SURGE CURRENT

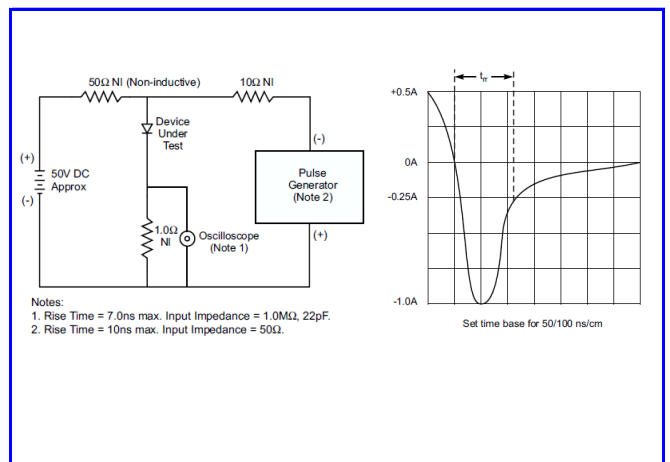
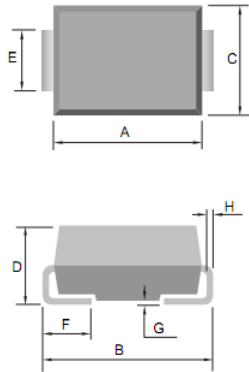


Fig. 6-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT

**RS2A THRU RS2M**  
FAST RECOVERY RECTIFIERS



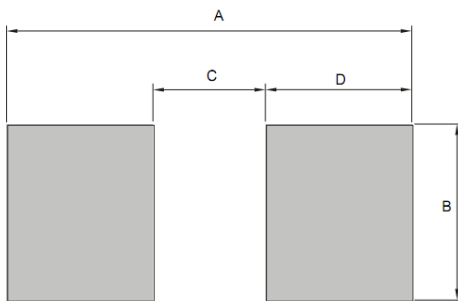
**OUTLINE DRAWINGS**



DIM	OUTLINE DIMENSIONS					
	MILLIMETERS			INCHES		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A	4.060	-	4.700	0.160	-	0.185
B	5.080	-	5.590	0.200	-	0.220
C	3.300	-	3.940	0.130	-	0.155
D	2.130	-	2.440	0.083	-	0.096
E	1.910	-	2.110	0.075	-	0.083
F	0.760	-	1.270	0.030	-	0.050
G	0.051	-	0.203	0.002	-	0.008
H	0.152	-	0.305	0.006	-	0.012

DO-214AA(SMB)

**MOUNTING PAD LAYOUT**



DIM	OUTLINE DIMENSIONS					
	MILLIMETERS			INCHES		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A		6.340			0.25	
B		2.720			0.107	
C		1.760			0.069	
D		2.290			0.09	

**Packing Information**

Product code	Pack	Reel Size (mm)	Quantity(pcs/reel)	Carton SizeLxWxH(mm)	Quantity(reeks/carton)
DO-214AA(SMB)	T/R	Φ330	3000	364x364x360	16