



**TAYCHIPST**

SURFACE MOUNT GENERAL PURPOSE RECTIFIERS

**S2A THRU S2M**

50V-1000V 2.0A

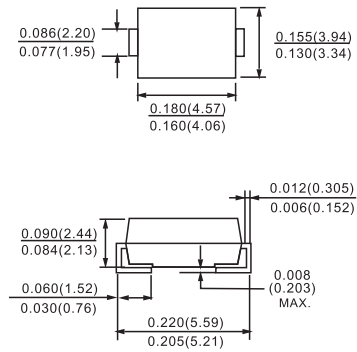
**Features**

- The plastic package carries UL flammability classification 94V-0
- High forward surge current capability
- Low reverse current

**Mechanical Data**

- **Case:** SMB (DO-214AA) molded plastic body
- **Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026
- **Polarity:** Color band denotes cathode end
- **Mounting position:** Any

DO-214AA(SMB)



Dimensions in inches and (millimeters)

**Maximum Ratings and Electrical Characteristics** @T<sub>A</sub>=25°C unless otherwise specified

Characteristic	Symbol	S2A	S2B	S2C	S2D	S2G	S2K	S2M	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	140	280	420	560	700	V
Average Rectified Output Current @T <sub>L</sub> = 110°C	I <sub>O</sub>	2.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	60							A
Forward Voltage @I <sub>F</sub> = 2.0A	V <sub>FM</sub>	1.10							V
Peak Reverse Current @T <sub>A</sub> = 25°C At Rated DC Blocking Voltage @T <sub>A</sub> = 125°C	I <sub>RM</sub>	5.0 50							μA
Typical Junction Capacitance (Note 2)	C <sub>j</sub>	15							pF
Typical Thermal Resistance (Note 3)	R <sub>θJL</sub>	16							°C/W
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-55 to +150°C							°C

Note: 1. Measured with I<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, I<sub>rr</sub> = 0.25A,  
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC.  
 3. Mounted on P.C. Board with 8.0mm<sup>2</sup> land area.



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FIG.1 -FORWARD CURRENT DERATING CURVE

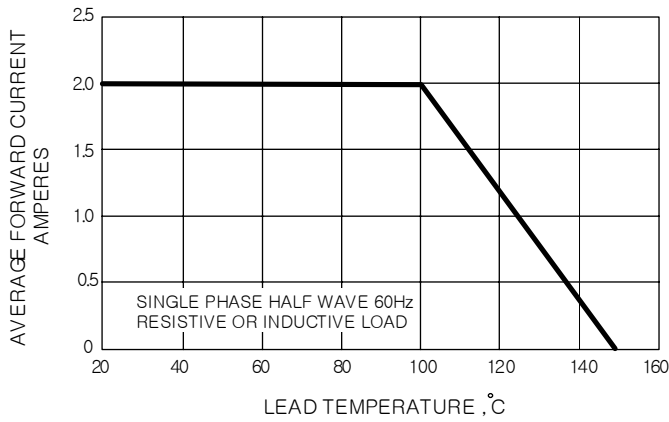


FIG.2 -MAXIMUM NON-REPETITIVE SURGE CURRENT

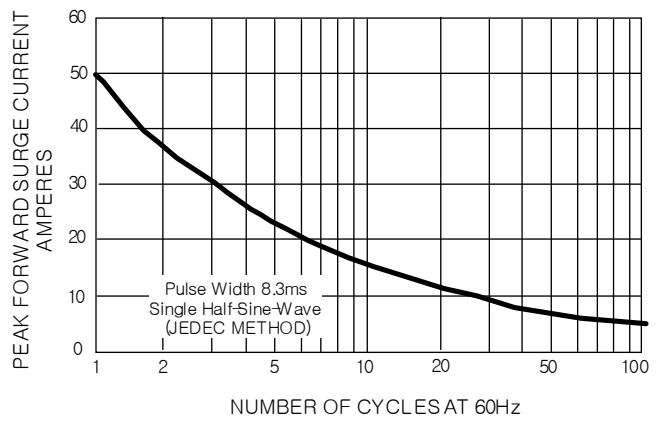


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

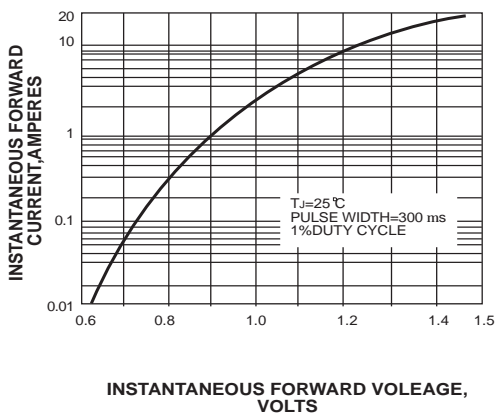


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

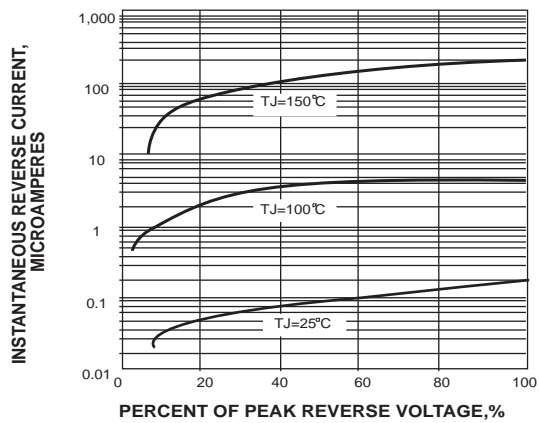


FIG. 5-TYPICAL JUNCTION CAPACITANCE

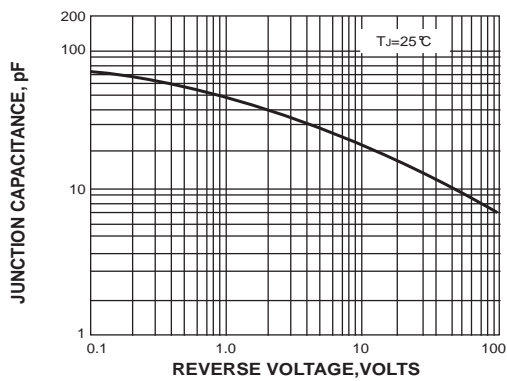


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

