

FEATURES

- Glass passivated junction.
- 500W Peak Pulse Power capability at 1.0 ms
- Excellent clamping capability.
- Low incremental surge resistance.
- Fast response time; typically less than 1.0 ps from 0 volts to BV for unidirectional and 5.0 ns for bidirectional.
- Typical I_R less than 1.0 μ A above 10V.



DO-204AC/DO-15

MECHANICAL DATA

- Case: Molded plastic
- Lead: Pure tin plated lead free, solderable per MIL-STD-750, Method 2026.
- Polarity : Color band denotes cathode except bipolar.
- Weight : 0.34 gram.

DEVICES FOR BIPOLAR APPLICATIONS

- Bidirectional types use CA suffix.
- Electrical Characteristics apply in both directions.

MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25 ambient temperature unless otherwise specified.

Type Number	Symbol	Value	Units
Peak Power Dissipation at $T_A=25^{\circ}\text{C}$, $T_p=1\text{ms}$ (Note 1)	P_{PPM}	Minimum 500	Watts
Steady State Power Dissipation at $T_L=75^{\circ}\text{C}$ Lead Lengths 0.375 Inch 9.5mm (Note 2)	P_D	3.2	
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) (Note 3)	I_{FSM}	70	Amps
Maximum Instantaneous Forward Voltage at 35A for Unidirectional Only (Note 4)	V_F	3.5 / 5.0	Volts
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to + 175	$^{\circ}\text{C}$

Notes: Notes: 1. Non-repetitive current pulse and derated above $T_A=25^{\circ}\text{C}$.

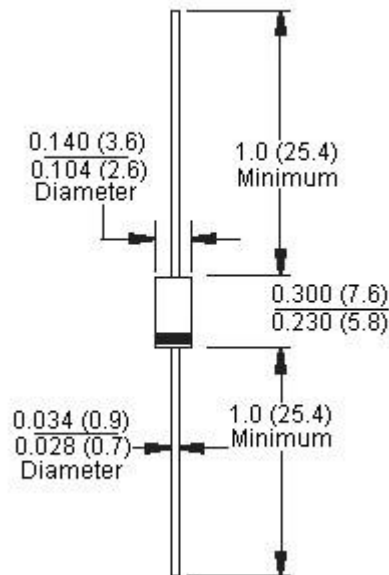
2. Mounted on copper pad area of 1.6 x 1.6 inch (40 x 40mm) per.

3. 8.3ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minutes maximum.

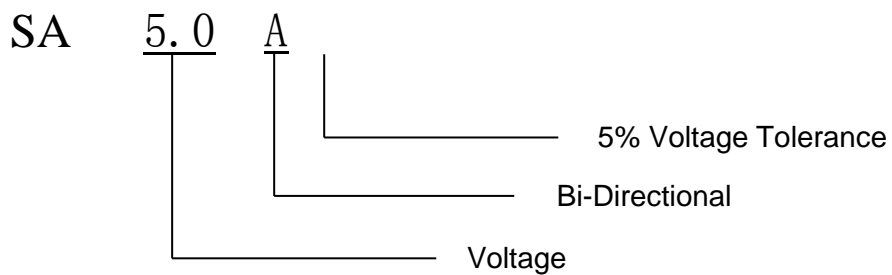
4. $V_F=3.5\text{V}$ for devices of $V_{BR}\leq 200\text{V}$ and $V_F=5.0\text{V}$ maximum for devices of $V_{BR}>200\text{V}$.

PACKAGE DIMENSIONS

DO-204AC/DO-15



ORDERING INFORMATION



PACKAGING

Part Number	Component Package	Quantity
SA5.0A	DO-204AC/DO-15	2000

ELECTRICAL CHARACTERISTICS

SA DEVICES	REVERSE STAND-LFF VOLTAGE V _{RWM} (V)	BREAKDOWN VOLTAGE Min. @ I _T V _{BR} Min.(V)	BREAKDOWN VOLTAGE Max. @ I _T V _{BR} Max.(V)	TEST CURRENT I _T (mA)	MAXIMUM CLAMPING VOLTAGE @ I _{pp} V _C (V)	PEAK PULSE CURRENT I _{pp} (A)	REVERSE LEAKAGE @ V _{RWM} I _R (uA)
SA5.0A	5.00	6.40	7.25	10	9.2	55.4	1000

TYPICAL CHARACTERISTICS

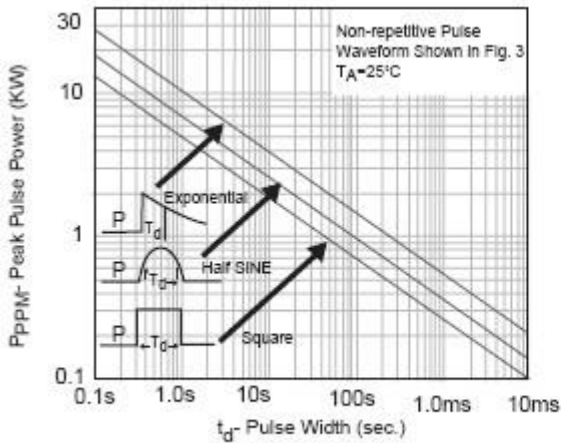


Fig. 1 Peak Pulse Power Rating Curve

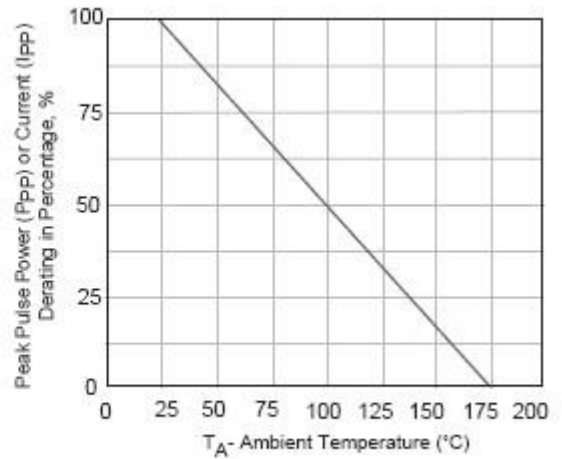


Fig. 2 Pulse Derating Curve

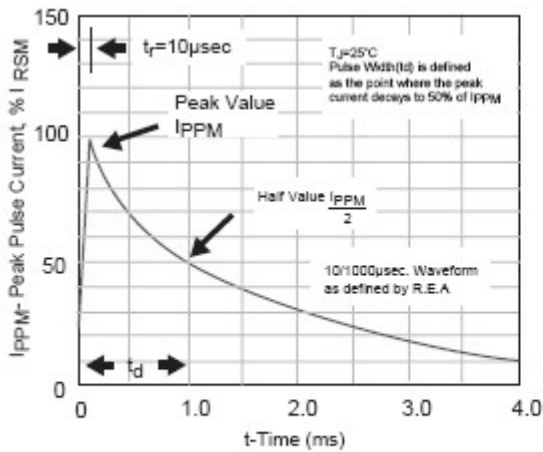


Fig. 3 Pulse Waveform

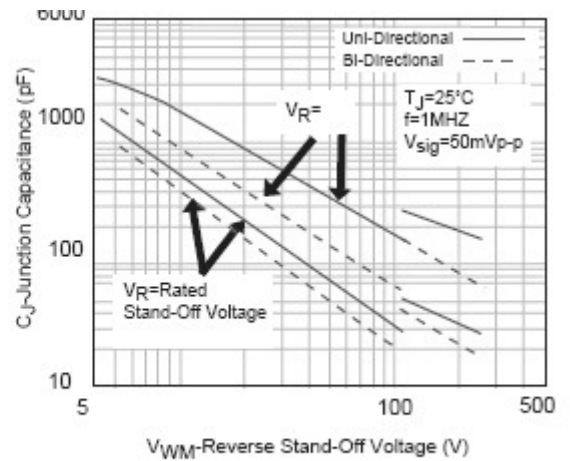


Fig. 4- Typical Junction Capacitance

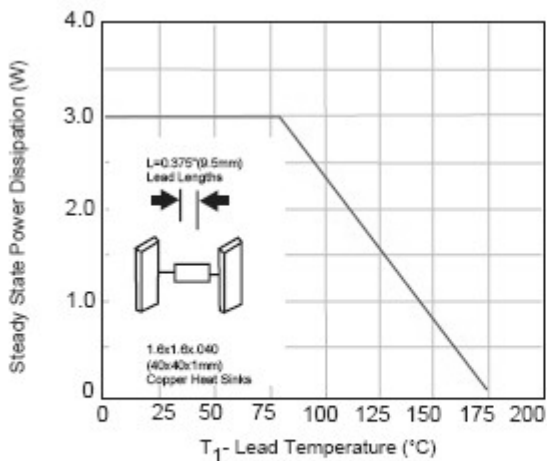


Fig. 5 Steady State Power Derating Curve

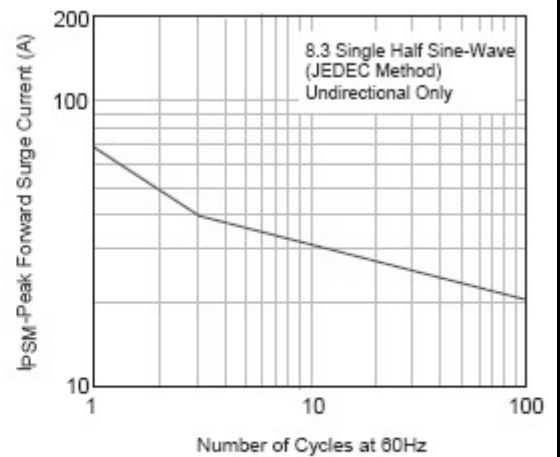


Fig. 6- Maximum Non-Repetitive Forward Surge Current Uni-Directional Only

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