

10.0AMPS. SUPERFAST RECOVERY RECTIFIER

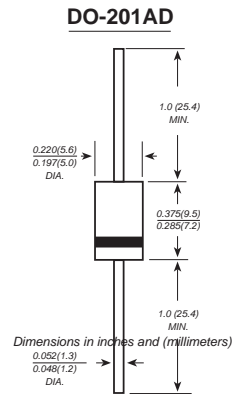
SRA4E

FEATURE

- . Low forward voltage drop
- . High current capability
- . High reliability
- . High surge current capability
- . Epitaxial construction
- . High temperature soldering guaranteed
260°C /10seconds, 0.25"(6.35mm)from case.

MECHANICAL DATA

- . Case: Molded with UL-94 Class V-0 recognized
Flame Retardant Epoxy
- . Mounting position: any



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

For capacitive load, derate current by 20%

MAXIMUM RATINGS (T_C=25°C unless otherwise noted)

Parameter	Symbol	SRA4E	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	400	V
Maximum RMS Voltage	V_{RMS}	280	V
Maximum DC blocking Voltage	V_{DC}	400	V
Maximum Average Forward Rectified Current at T _C =100°C	$I_{F(AV)}$	10.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	120	A
Maximum Reverse Recovery Time (Note 1)	t_{rr}	30	nS
Typical Junction Capacitance (Note 2)	C_J	50	pF
Operation Junction Temperature and Storage Temperature	T_J, T_{STG}	-55 to +175	°C

ELECTRICAL CHARACTERISTICS (T_C=25°C unless otherwise noted)

Parameter	Symbol	Typ	Max	Units
Maximum Forward Voltage at 10.0A DC	V_F	1.10	1.30	V
Maximum DC Reverse Current @T _A =25°C	I_R	----	10	μA
at rated DC blocking voltage @T _A =100°C		----	100.0	

THERMAL CHARACTERISTICS (T_C=25°C unless otherwise noted)

Parameter	Symbol	SRA4E	Units
Typical Thermal Resistance (Note 3)	$R_{(JC)}$	6.5	°C/W

Note:

1. Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Thermal Resistance From Junction to Case

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RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

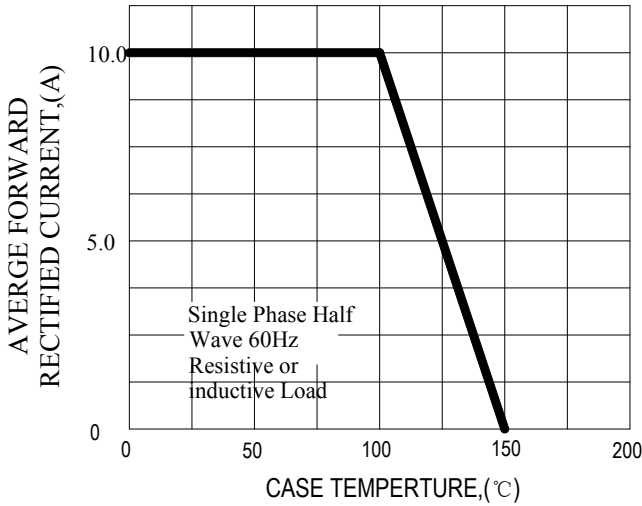


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

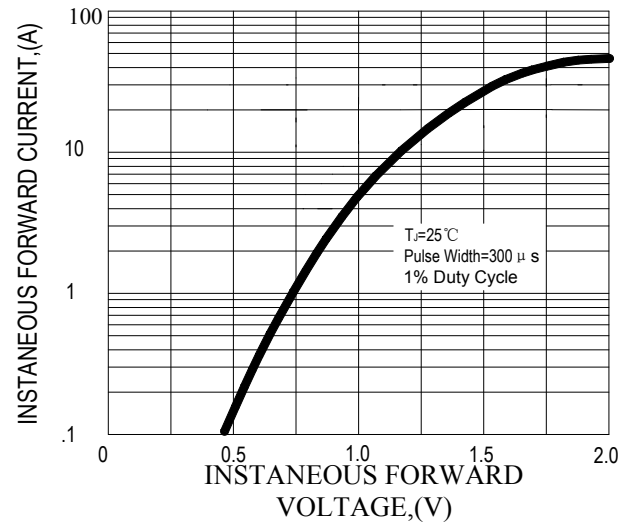


FIG.3-MAXIMUN NON-REPETITIVE FORWARD SURGE CURRENT

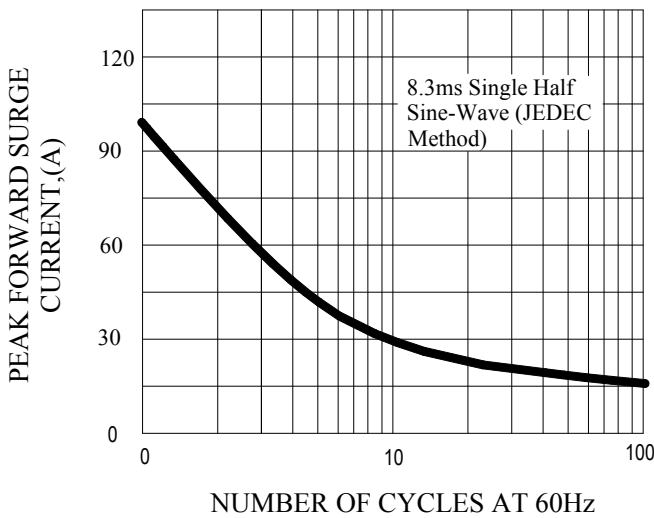


FIG.4-TYPICAL REVERSE CHARACTERISTICS

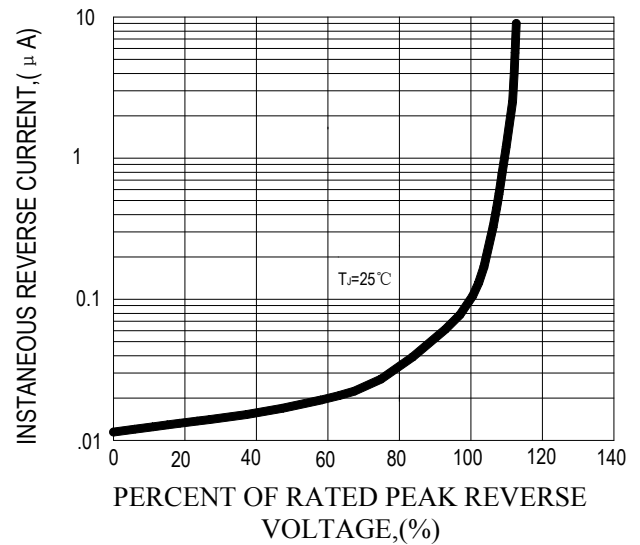


FIG.5-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

