BY550 – 50 THRU BY550 – 1000

5.0 AMPS. SILICON RECTIFIERS

FEATURES

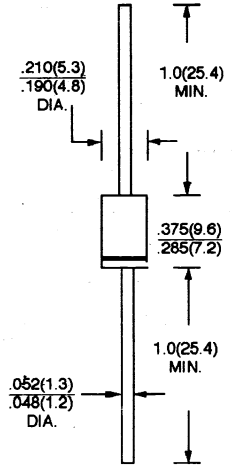
* Low forward voltage drop
* High current capability
* High reliability
* High surge current capability

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
* Polarity: Color band denotes cathode end
* Mounting Position: Any
* Weight: 1.18 grams

VOLTAGE RANGE
50 to 1000 Volts
CURRENT
5.0 Amperes

DO-201AD



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%

TYPE NUMBER	SYMBOLS	BY550 – 50	BY550 – 100	BY550 – 200	BY550 – 400	BY550 – 600	BY550 – 800	BY550 – 1000	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum Reverse Voltage	V_{RMS}	50	100	200	400	600	800	1000	V
Maximum D.C Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375" (9.5mm) lead length @ $T_L = 60℃$	$I_{F(AV)}$	5.0							A
Repetitive Peak Forward Current(f > 15Hz)(Note 1.)	I_{FRM}	60.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	300							A
Maximum Instantaneous Forward Voltage at 5.0A	V_F	1.1							V
Maximum D.C Reverse Current @ $T_A = 25℃$ at Rated D.C Blocking Voltage	I_R	20.0							μA
Typical Thermal Resistance(Note 2)	$R_{\theta JA}$	30.0							℃/W
Operating Temperature Range	T_J	– 65 to + 150							℃
Storage Temperature Range	T_{STG}	– 65 to + 150							℃

NOTES: 1. Valid. If leads are kept at ambient temperature at distance of 10mm form case.
2. Thermal Resistance from Junction to Ambient 0.375"(9.5mm) Lead Length.

JGD

RATINGS AND CHARACTERISTIC CURVES (BY550 – 50 THRU BY550 – 100)

FIG.1 – TYPICAL FORWARD CURRENT DERATING CURVE

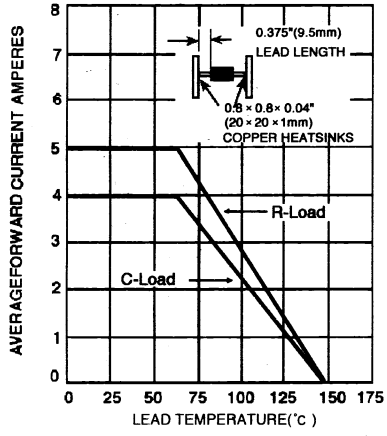


FIG.2 – TYPICAL FORWARD CHARACTERISTICS

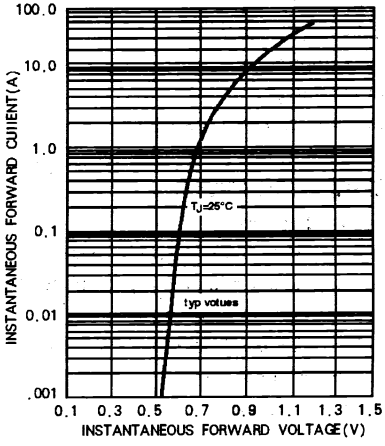


FIG.3 – MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

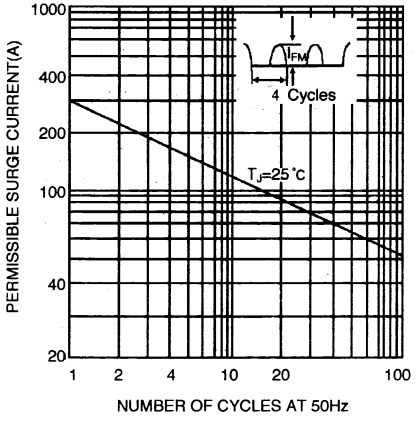


FIG.4 – TYPICAL THERMAL RESISTANCE