

# DC COMPONENTS CO., LTD.

## RECTIFIER SPECIALISTS

R1200 THRU R3000

TECHNICAL SPECIFICATIONS OF HIGH VOLTAGE SILICON RECTIFIER

VOLTAGE RANGE - 1200 to 3000 Volts CURRENT - 0.2 to 0.5 Ampere

### **FEATURES**

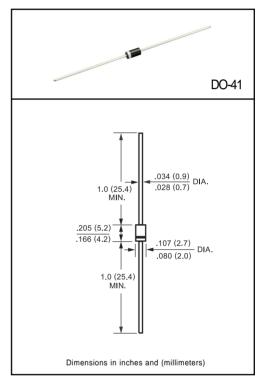
- \* Low cost
- \* Low leakage
- \* Low forward voltage drop
- \* High current capability

#### MECHANICAL DATA

- \* Case: Molded plastic
- \* Epoxy: UL 94V-0 rate flame retardant
- \* Lead: MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 0.35 gram

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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



		SYMBOL	R1200	R1500	R1800	R2000	R2500	R3000	UNITS
Maximum Recurrent Peak Reverse Voltage		VRRM	1200	1500	1800	2000	2500	3000	Volts
Maximum RMS Volts		VRMS	840	1050	1260	1400	1750	2100	Volts
Maximum DC Blocking Voltage		VDC	1200	1500	1800	2000	2500	3000	Volts
Maximum Average Forward Rectified Current at TA = 50°C		lo	500		200			mAmps	
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		IFSM	30					Amps	
Maximum Instantaneous Forward Voltage at 0.5A/0.2A DC		VF		2.0	3.0		4.0	Volts	
Maximum DC Reverse Current	@TA = 25°C		5.0						
at Rated DC Blocking Voltage	@Ta =100°C	lr.			1	00		uAmps	
Maximum Full Load Reverse Current Average, Full Cycle .375* (9.5mm) lead length at T L = 75°C			30					uAmps	
Typical Junction Capacitance (Note)		Cı	30					pF	
Operating and Storage Temperature Range		TJ, TSTG	-65 to + 175					°C	

NOTES: Measured at 1 MHz and applied reverse voltage of 4.0 volts.

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE 500 AVERAGE FORWARD CURRENT, (A) Single Phase Half Wave 60Hz Inductive or 400 Resistive Load 300 P, 200 100 0 0 50 100 150 175 AMBIENT TEMPERATURE, (°C)

FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT 70 PEAK FORWARD SURGE CURRENT, (A) 60 8.3ms Single Half Si (JEDEC Method) 50 40 30 20 10 0 1 10 100 NUMBER OF CYCLES AT 60Hz

FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

