

50A CELL SERIES

SILICON RECTIFIERS

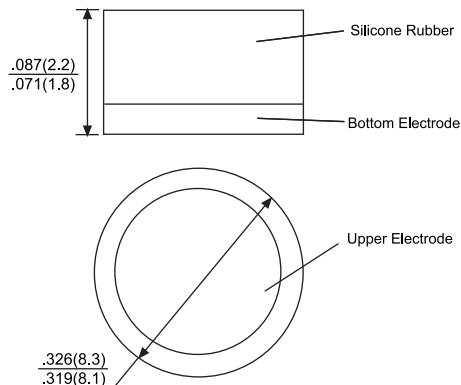
Voltage Range
50 to 1000 Volts
Current
50 Amperes

FEATURES

- Low cost
- High surge capability
- Solderable electrode surface
- Ideal for hybrids

MECHANICAL DATA

- Polarity: Bottom or upper electrode denotes cathode according to the notice in package



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C unless otherwise specified.
Single phase, half wave, 50Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Type Number		50A 100V	50A 200V	50A 400V	50A 600V	50A 800V	50A 1000V	UNITS
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @TA = 55°C (Note 2)	I _{F(AV)}	50						A
Peak Forward Surge Current (8.3ms single half sine - wave superimposed on rated load)	I _{FSM}	400						A
Maximum Instantaneous Forward Voltage (at rated forward current)	V _F	1.0						V
Maximum DC Reverse Current (at Rated DC Blocking Voltage) @TA = 25°C @TA = 150°C	I _R	10 1000						uA
Typical Junction Capacitance element (Note 1)	C _J	300						pF
Typical Thermal Resistance (Note 3)	R _{θ(ja)}	1						°C/W
Operating Temperature Range	T _J	-55 to +150						°C
Storage Temperature Range	T _{STG}	-55 to +150						°C

NOTES: 1. Measured at 1.0MHz and applied reverse voltage of 4.0 V DC.
2. When mounted to heat sink from body.
3. Thermal resistance from junction to Ambient.

RATING AND CHARACTERISTIC CURVES

50A CELL

FIG.1 - FORWARD CURRENT DERATING CURVE

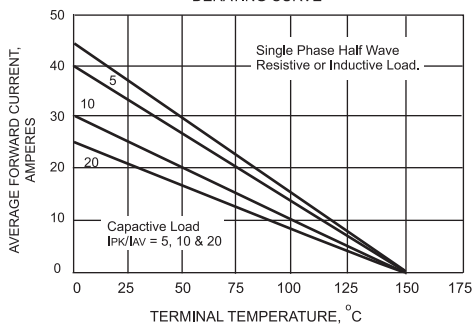


FIG.2 - NON - REPETITIVE PEAK FORWARD SURGE CURRENT

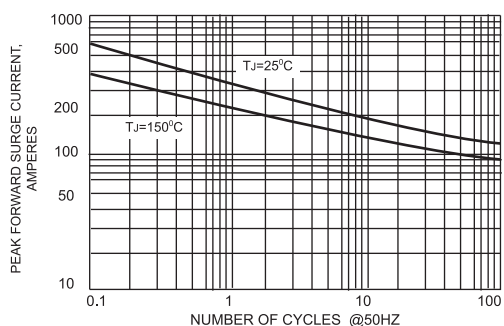


FIG.3 - FORWARD CURRENT DERATING CURVE

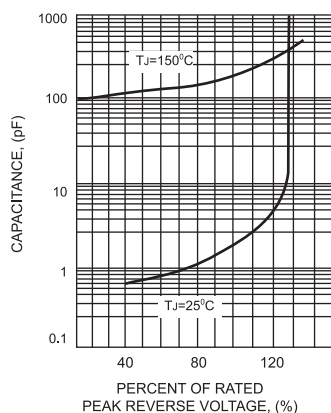


FIG.4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

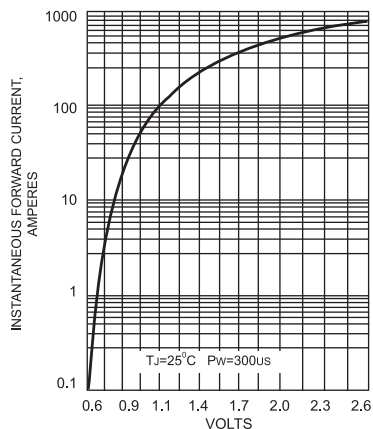


FIG.5 - TYPICAL JUNCTION CAPACITANCE

