



# 50A CELL SERIES

## SILICON RECTIFIERS

**Voltage Range**  
50 to 1000 Volts  
**Current**  
50 Amperes

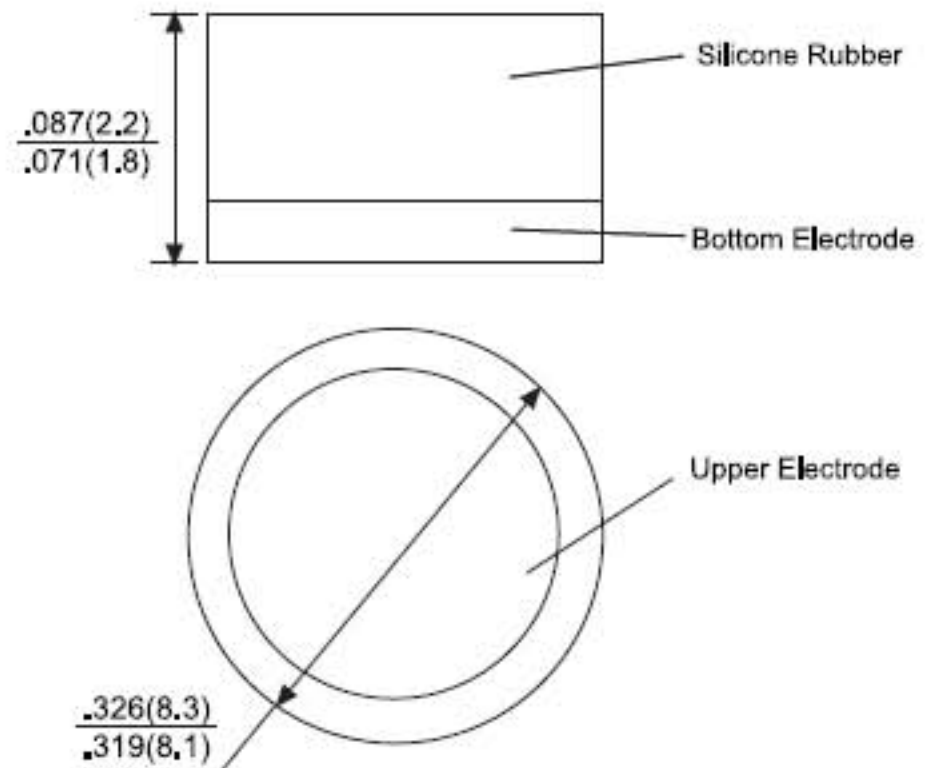
### FEATURES

- 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

### CELL50



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	VRRM	100	200	400	600	800	1000	V
Maximum RMS Voltage	VRMS	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @TA = 55°C (Note 2)	IF(AV)	50						A
Peak Forward Surge Current (8.3ms single half sine - wave superimposed on rated load)	IFSM	500						A
Maximum Instantaneous Forward Voltage (at rated forward current)	VF	1.0						V
Maximum DC Reverse Current (at Rated DC Blocking Voltage) @TA = 25°C @TA = 150°C	IR	5 500						uA
Typical Junction Capacitance element (Note 1)	CJ	300						pF
Typical Thermal Resistance (Note 3)	Rθ(ja)	1						°C/W
Operating Temperature Range	TJ	-55 to +150						°C
Storage Temperature Range	TSTG	-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

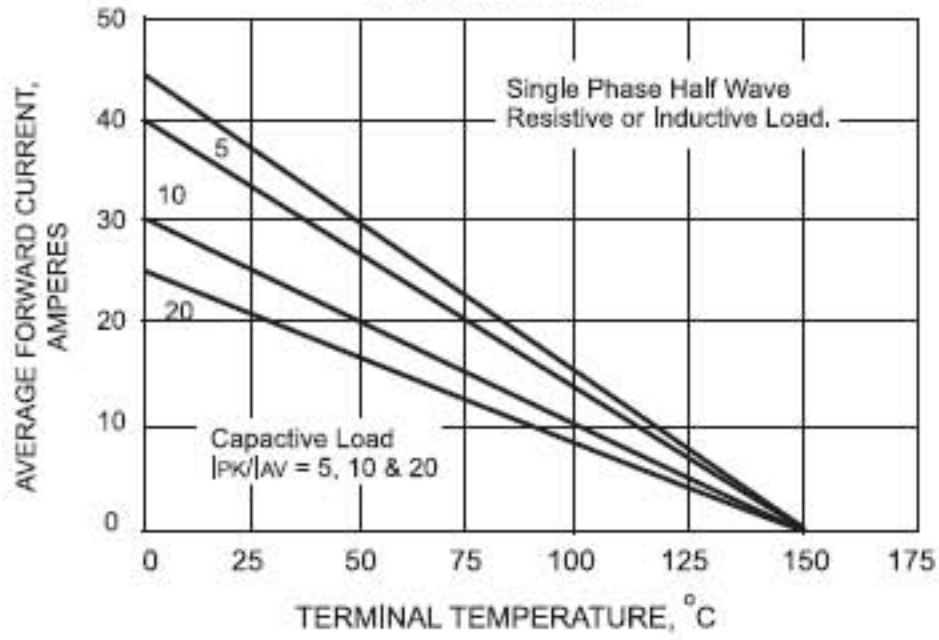


FIG.2 - NON-REPETITIVE PEAK FORWARD SURGE CURRENT

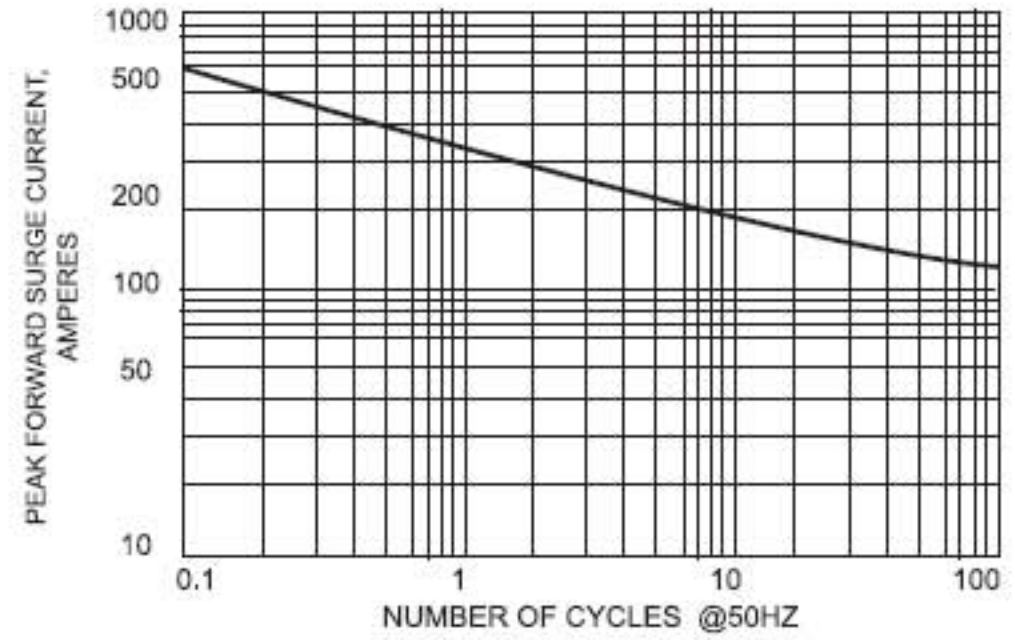


FIG.3 - FORWARD CURRENT DERATING CURVE

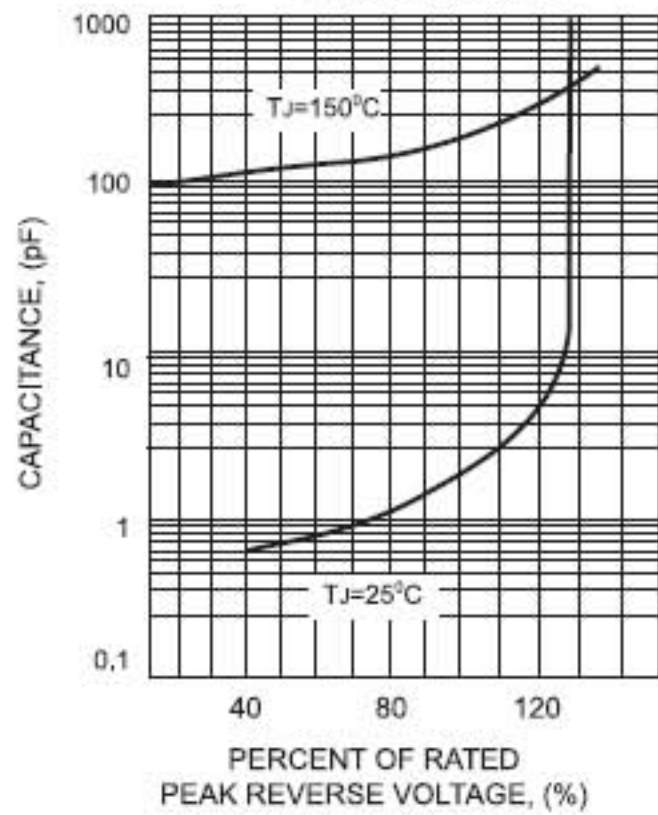


FIG.4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

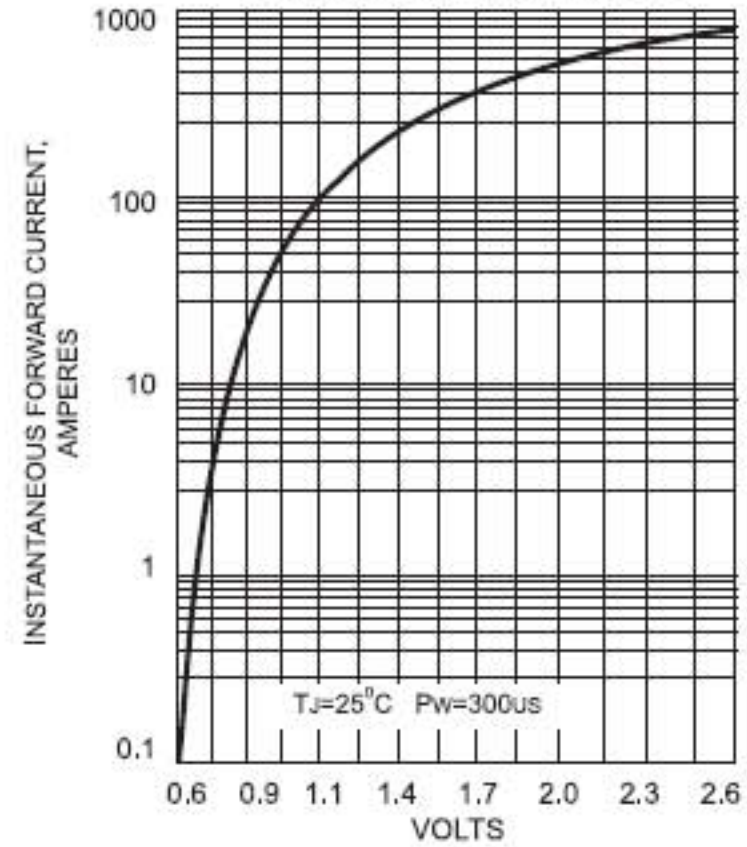


FIG.5 - TYPICAL JUNCTION CAPACITANCE

