40A CELL SERIES

SILICON RECTIFIERS

Voltage Range
50 to 1000 Volts
Current
40 Amperes

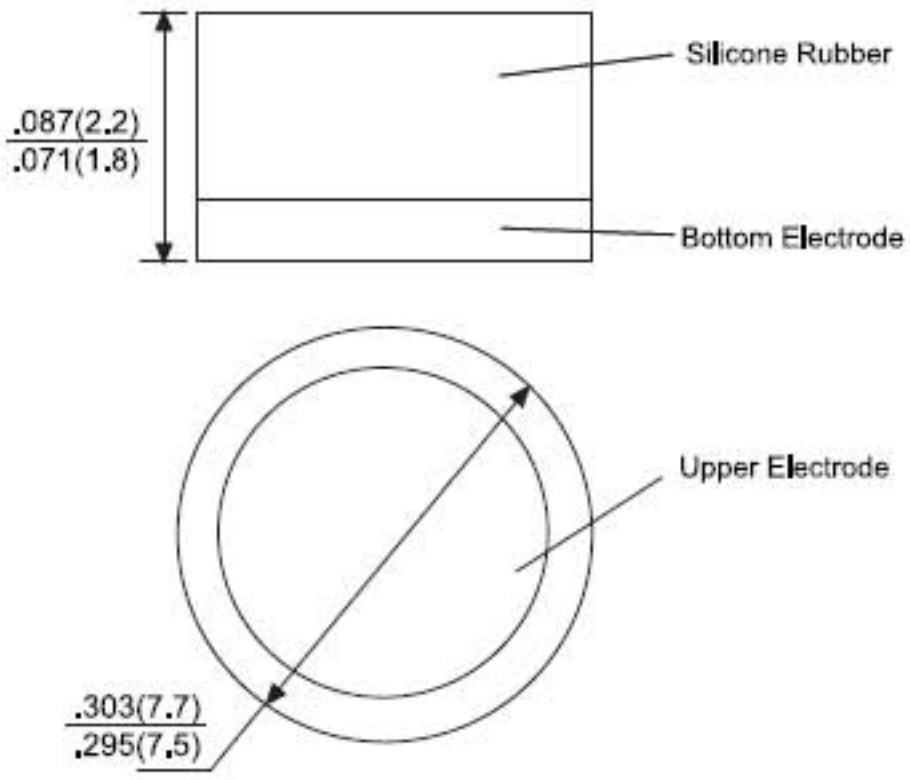
FEATURES

- 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

CELL40



Dimensions in inches and (milimeters)

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		40A 100V	40A 200V	40A 400V	40A 600V	40A 800V	40A 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 @T_A = 55°C (Note 2)	$I_{F(AV)}$	40						A
Peak Forward Surge Current (8.3ms single half sine - wave superimposed on rated load)	I_{FSM}	500						A
Maximum Instantaneous Forward Voltage (at rated forward current)	V_F	1.0						V
Maximum DC Reverse Current @T_A = 25°C (at Rated DC Blocking Voltage) @T_A = 150°C	I_R	5 500						uA
Typical Junction Capacitance element (Note 1)	C_J	300						pF
Typical Thermal Resistance (Note 3)	$R_{\theta(ja)}$	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
40A CELL

FIG.1 - FORWARD CURRENT
DERATING CURVE

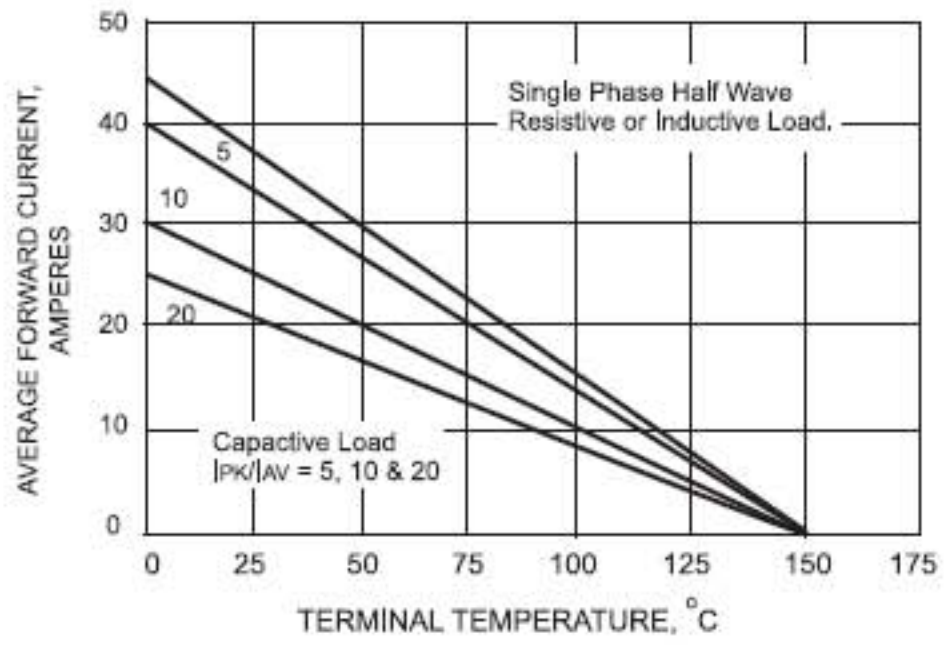


FIG.2 - NON - REPETITIVE
PEAK FORWARD SURGE CURRENT

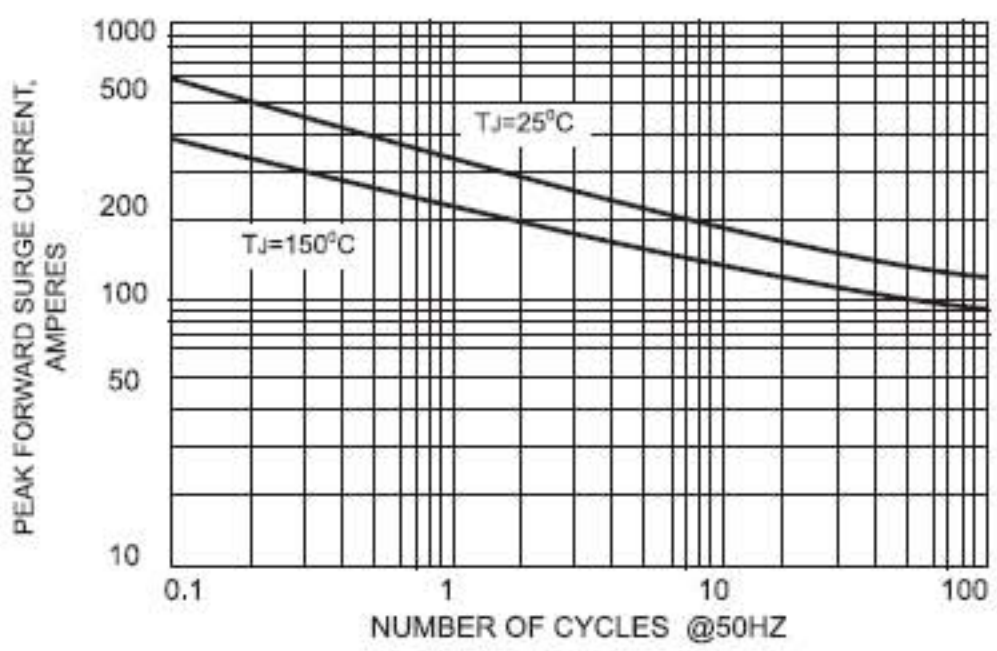


FIG.3 - FORWARD CURRENT
DERATING CURVE

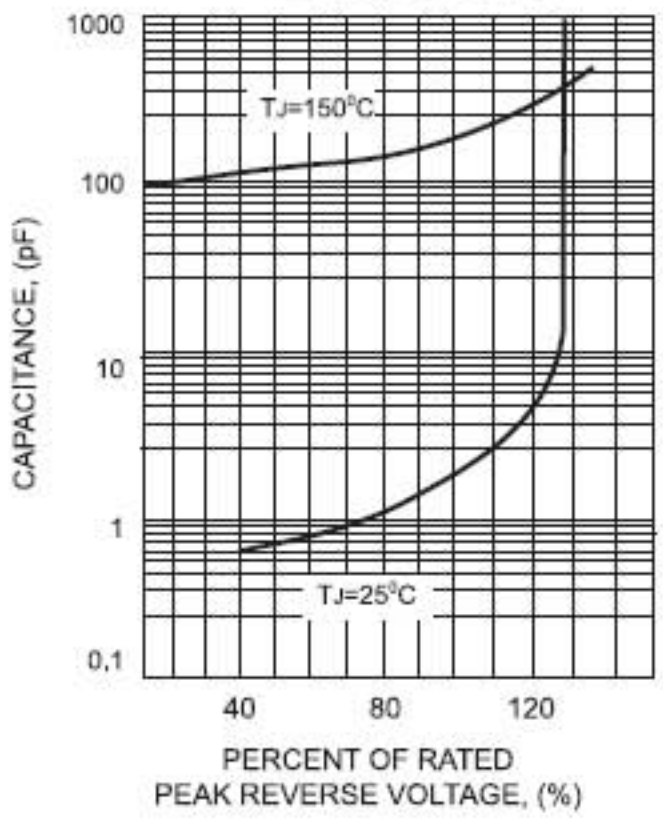


FIG.4 - TYPICAL INSTANTANEOUS
FORWARD CHARACTERISTICS

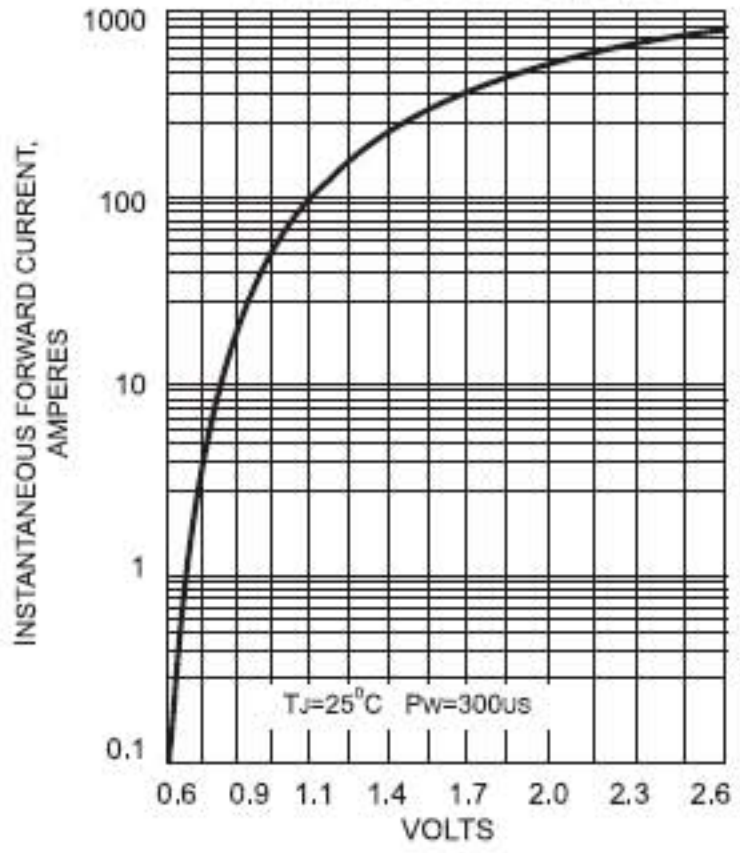


FIG.5 - TYPICAL JUNCTION CAPACITANCE

