



RC50S01-RC50S10

SILICON RECTIFIERS PASSIVATED RECTIFIERS

REVERSE VOLTAGE - 50 to 1000 Volts
FORWARD CURRENT - 50 Amperes

FEATURES

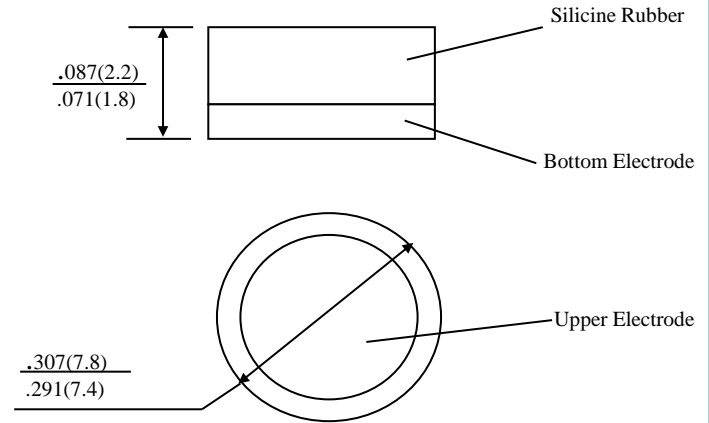
- High surge capability
- Solderable electrode surface
- Ideal for hybrids

MECHANICAL DATA

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

Note: Products with logo  or  are made by HY Electronic (Cayman) Limited.

SOZER



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	RC50S01	RC50S02	RC50S04	RC50S06	RC50S08	RC50S10	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	200	400	600	800	1000	V
Maximum RMS Input Voltage	V_{RMS}	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Output Current @Tc=55 °C (Note 2)	$I_{F(AV)}$	50						A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC Method)	I_{FSM}	700						A
Maximum Forward Voltage Drop per element (at rated forward current)	V_F	1.1						V
Maximum DC Reverse Current @TA=25°C (at Rated DC Blocking Voltage) @TA=150°C	I_R	10						μ A
		500						
Typical Junction Capacitance element (Note 1)	C_J	300						pF
Typical Thermal Resistance (Note 3)	$R_{Q(ja)}$	1						°C/W
Operating Temperature Range Tc	T_J	-55 to +125						°C
Storage Temperature Range TA	T_{STG}	-55 to +150						°C

NOTES: 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC

2. When mounted to heat sink from body.

3. Thermal Resistance Junction of Ambient.

4. Type were denoted in the notice of the package.

5. The typical data above is for reference only.



FIG. 1 – FORWARD CURRENT DERATING CURVE

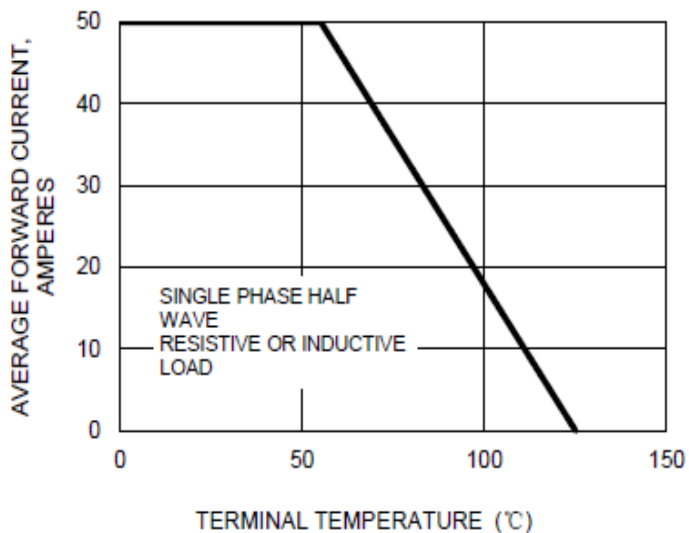


FIG.2- NON-REPETITIVE PEAK FORWARD SURGE CURRENT

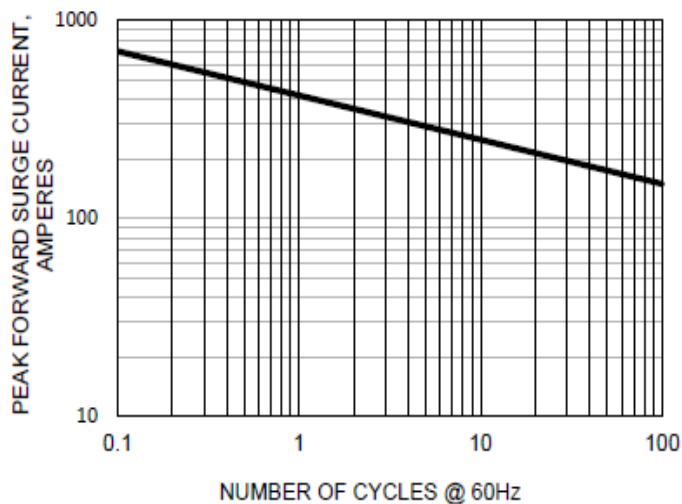


FIG.3-FORWARD CURRENT DERATING CURVE

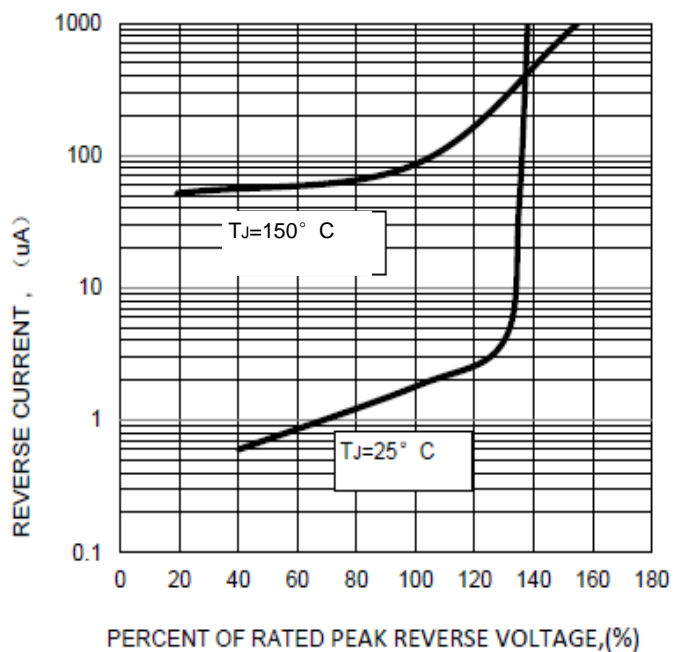
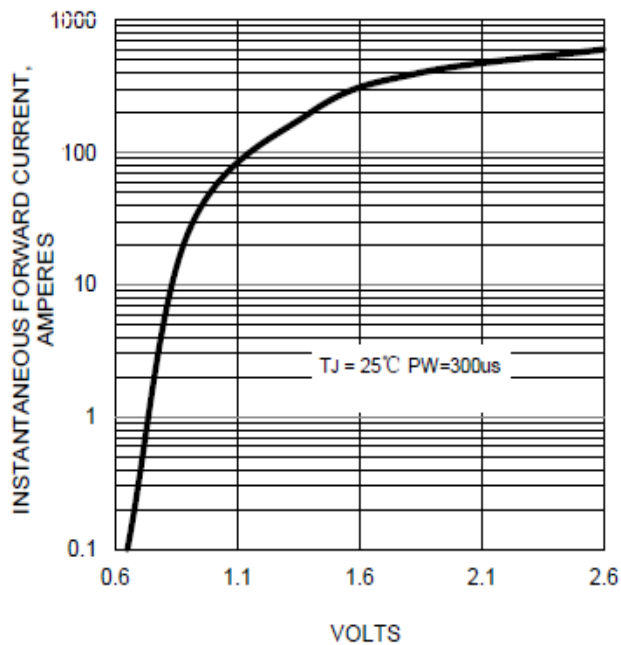


FIG.4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



The curve above is for reference only.



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