

## CT1500 - CT1510

PRV : 50 - 1000 Volts

I<sub>o</sub> : 30 Amperes

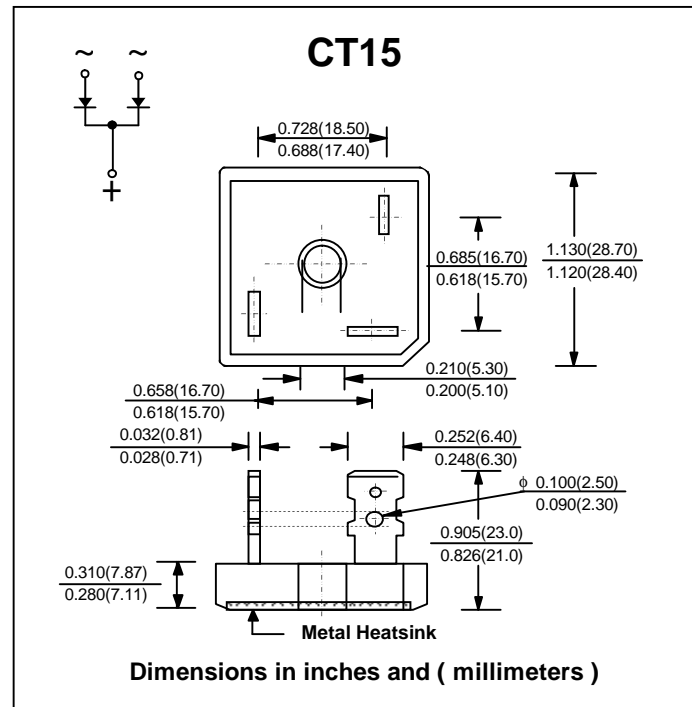
### FEATURES :

- \* High case dielectric strength
- \* High surge current capability
- \* High reliability
- \* High efficiency
- \* Low reverse current
- \* Low forward voltage drop
- \* Pb / RoHS Free

### MECHANICAL DATA :

- \* Case : Molded plastic with heatsink integrally mounted in the bridge encapsulation
- \* Epoxy : UL94V-O rate flame retardant
- \* Terminals : plated .25" (6.35 mm). Faston
- \* Polarity : Polarity symbols marked on case
- \* Mounting position : Bolt down on heat-sink with silicone thermal compound between bridge and mounting surface for maximum heat transfer efficiency.
- \* Weight : 16 grams

## CENTER TAP DIODES



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 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%.

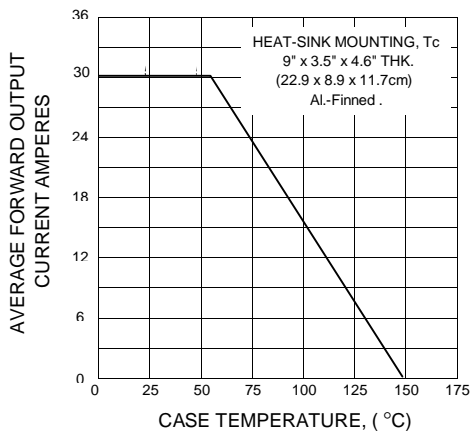
RATING	SYMBOL	CT1500	CT1501	CT1502	CT1504	CT1506	CT1508	CT1510	UNIT	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V	
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V	
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V	
Maximum Average Forward Current T <sub>c</sub> = 55 °C	I <sub>o</sub>	30								A
Peak Forward Surge Current Single half sine wave Superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	400								A
Current Squared Time at t < 8.3 ms.	I <sup>2</sup> t	660								A <sup>2</sup> S
Maximum Forward Voltage per Diode at I <sub>F</sub> =15 Amps.	V <sub>F</sub>	1.1								V
Maximum DC Reverse Current Ta = 25 °C at Rated DC Blocking Voltage Ta = 100 °C	I <sub>R</sub>	10								μA
	I <sub>R(H)</sub>	200								μA
Typical Thermal Resistance (Note 1)	R <sub>θJC</sub>	1.4								°C/W
Operating Junction Temperature Range	T <sub>J</sub>	- 40 to + 150								°C
Storage Temperature Range	T <sub>STG</sub>	- 40 to + 150								°C

#### Notes :

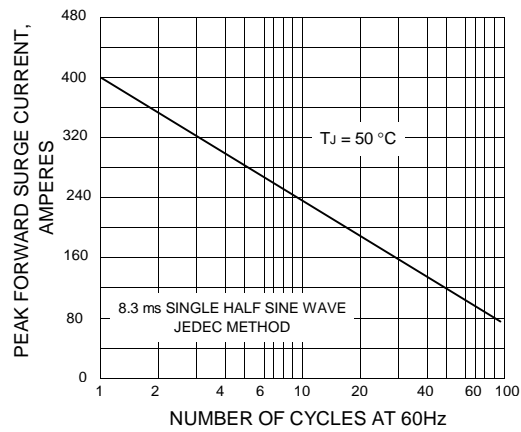
- 1) Thermal resistance from Junction to Case with units mounted on a 9"x3.5"x4.6" (22.9x8.9x11.7 cm) Al-Finned Heatsink.

## RATING AND CHARACTERISTIC CURVES (CT1500 - CT1510)

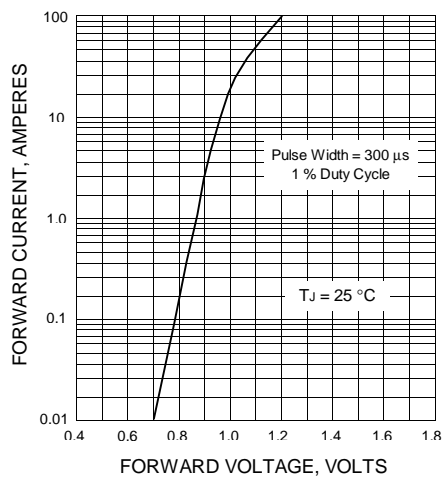
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER DIODE**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER DIODE**

