

## AXIAL LEADED HERMETICALLY SEALED STANDARD RECOVERY RECTIFIER DIODE

## QUICK REFERENCE DATA

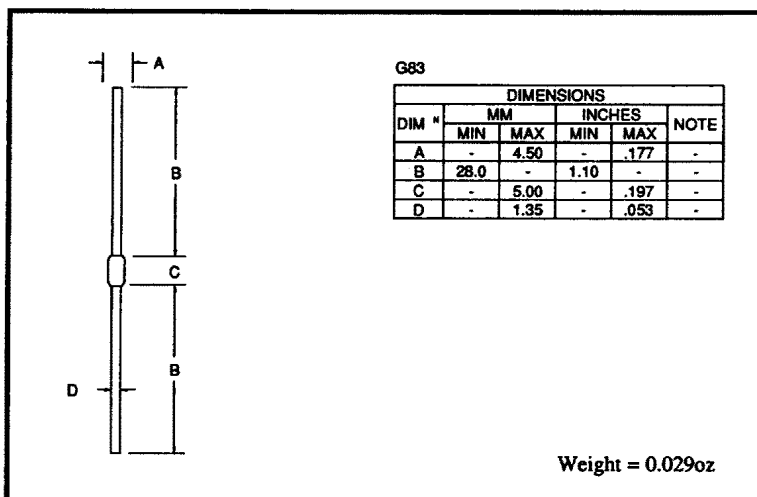
- Low reverse current
- Glass passivated for hermetic sealing
- Low forward voltage drop
- Avalanche capability
- Good thermal shock resistance

- $V_R = 200 - 1000V$
- $I_F = 3.5A$
- $t_{rr} = 2.5\mu S$
- $I_R = 1\mu A$

### ABSOLUTE MAXIMUM RATINGS (@ 25°C unless otherwise specified)

	Symbol	3PM2	3PM4	3PM6	3PM8	3PM0	Unit
Working reverse voltage	$V_{RWM}$	200	400	600	800	1000	V
Repetitive reverse voltage	$V_{RRM}$	200	400	600	800	1000	V
Surge reverse voltage	$V_{RSM}$	225	450	650	900	1100	V
Average forward current (@ 55°C lead length 0.375")	$I_{F(AV)}$	← 3.50 →					A
Repetitive surge current (@ 55°C in free air, lead length 0.375")	$I_{FRM}$	← 20 →					A
Non-repetitive surge current ( $t_p = 8.3mS$ , @ $V_R$ & $T_{jmax}$ )	$I_{FSM}$	← 80 →					A
Storage temperature range	$T_{STG}$	← -65 to +175 →					°C
Operating temperature range	$T_{OP}$	← -65 to +175 →					°C

### MECHANICAL



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**CHARACTERISTICS** (@ 25°C unless otherwise specified)

	Symbol	3PM2	3PM4	3PM6	3PM8	3PM0	Unit	
Average forward current (sine wave) - max. pcb mounted; T <sub>A</sub> = 55°C - max. L = 3/8"; T <sub>L</sub> = 55°C	I <sub>F(AV)</sub>	←————— 1.5 —————→						A
I <sup>2</sup> t for fusing (t = 8.3mS) max.	I <sub>F(AV)</sub>	←————— 3.5 —————→						A
	I <sup>2</sup> t	←————— 31 —————→						A <sup>2</sup> S
Forward voltage drop max. @ I <sub>F</sub> = 3.0A, T <sub>j</sub> = 25°C	V <sub>F</sub>	←————— 1.15 —————→						V
Reverse current max. @ V <sub>RWM</sub> , T <sub>j</sub> = 25°C	I <sub>R</sub>	←————— 1.0 —————→						$\mu$ A
@ V <sub>RWM</sub> , T <sub>j</sub> = 100°C	I <sub>R</sub>	←————— 10 —————→						$\mu$ A
Reverse recovery time typ. 0.5A I <sub>F</sub> to 1.0A I <sub>R</sub> . Recovers to 0.25A I <sub>RR</sub> .	t <sub>rr</sub>	←————— 2.5 —————→						$\mu$ S
Junction capacitance typ. @ V <sub>R</sub> = 5V, f = 1MHz	C <sub>j</sub>	←————— 33 —————→						$\rho$ F
Thermal resistance - junction to lead Lead length = 0.375"	R $\theta$ <sub>JL</sub>	←————— 26 —————→						$^{\circ}$ C/W
Lead length = 0"	R $\theta$ <sub>JL</sub>	←————— 12 —————→						$^{\circ}$ C/W
Thermal resistance - junction to amb. on 0.06" thick pcb. 1oz copper.	R $\theta$ <sub>JA</sub>	←————— 75 —————→						$^{\circ}$ C/W

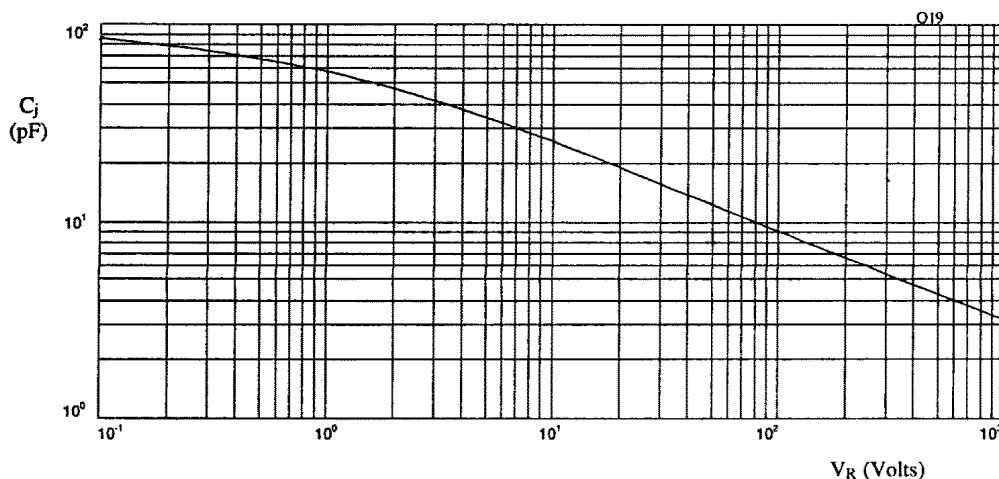


Fig 1. Typical junction capacitance as a function of reverse voltage at f = 1MHz.

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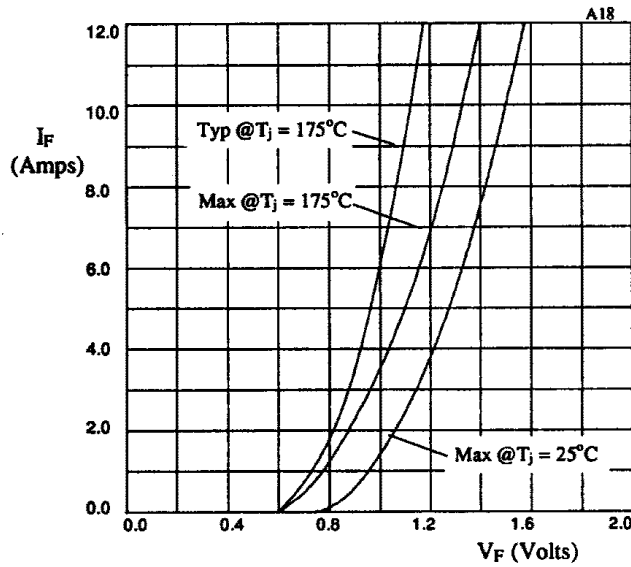


Fig 2. Forward voltage drop as a function of forward current.

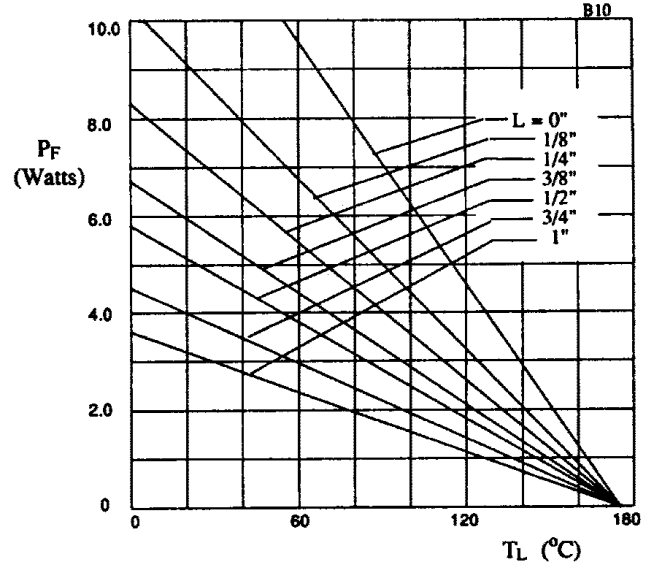


Fig 3. Maximum power versus lead temperature.

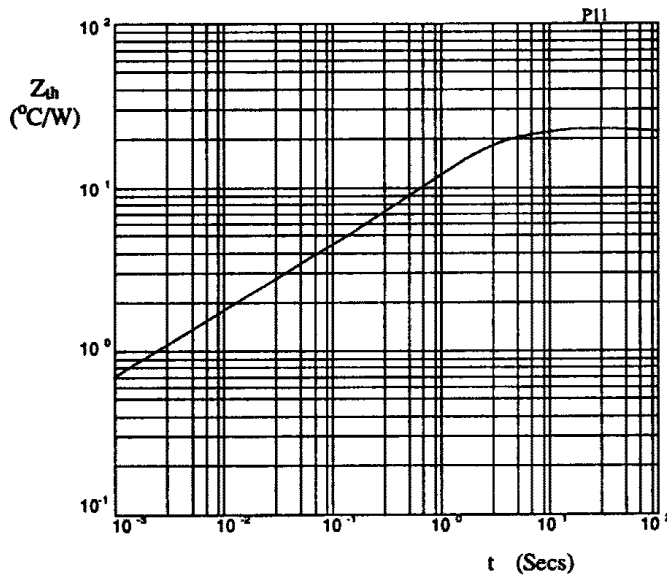


Fig 4. Transient thermal impedance characteristic.

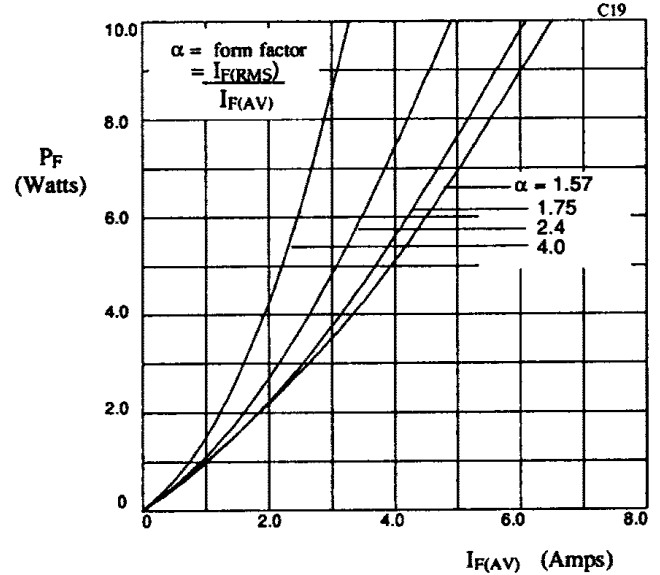


Fig 5. Forward power dissipation as a function of forward current, for sinusoidal operation.