January 7, 1998

CHARACTERISTICS (@ 25°C unless otherwise specified)

	Symbol	F15 F20 F25 F30	Unit
Average forward current max. (pcb mounted; T_A = 55°C)			
for sine wave	$I_{F(AV)}$	← 0.16 →	A
for square wave (d = 0.5)	$I_{F(AV)}$	← 0.20 →	A
Average forward current max. (unstirred oil at 55°C)			
for sine wave	$I_{F(AV)}$	← 0.33 →	A
for square wave	$I_{F(AV)}$	← 0.35 →	A
I^2t for fusing (t = 8.3mS) max.	I^2t	← 0.10 →	A^2S
Forward voltage drop max. @ I_F = 0.10A, T_j = 25°C	V_F	← 5.00 →	V
Reverse current max.			
@ V_{RWM}, T_j = 25°C	I_R	← 0.25 →	µA
@ V_{RWM}, T_j = 100°C	I_R	← 10 →	µA
Reverse recovery time max. 50mA I_F to 100mA I_R. Recover to 25mA I_{RR}.	t_{rr}	← 250 →	nS
Junction capacitance typ. @ V_R = 5V , f = 1MHz	C_j	← 2.5 →	pF
Thermal resistance - junction to oil			
Stirred oil	$R_{\theta JO}$	← 30 →	°C/W
Unstirred oil	$R_{\theta JO}$	← 48 →	°C/W
Thermal resistance - junction to amb. on 0.06" thick pcb. 1oz copper.	$R_{\theta JA}$	← 120 →	°C/W

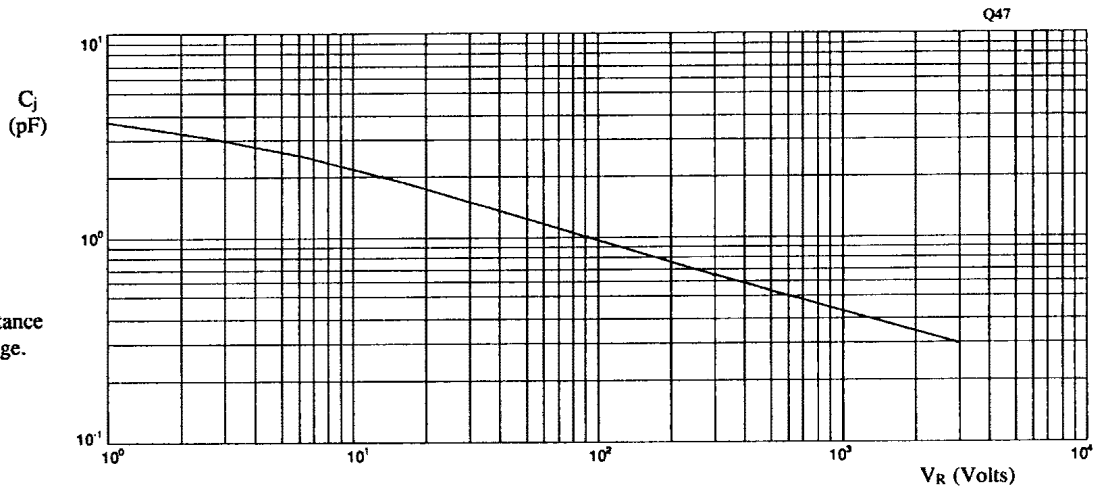

Fig 1. Junction capacitance against reverse voltage.

January 7, 1998

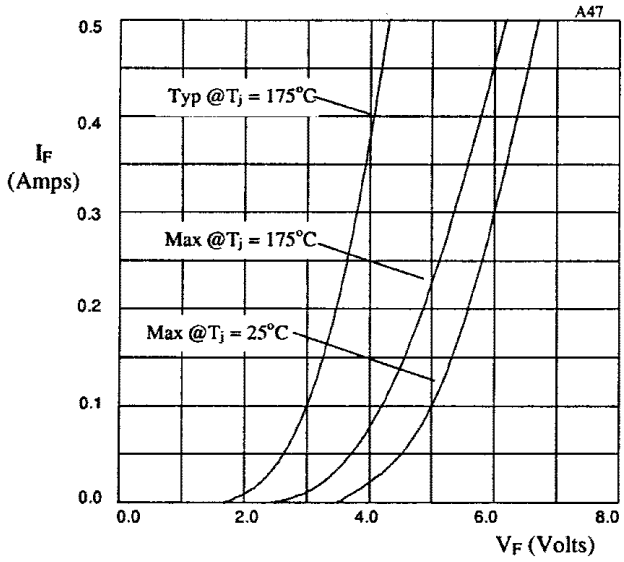

Fig 2. Forward voltage drop as a function of forward current.

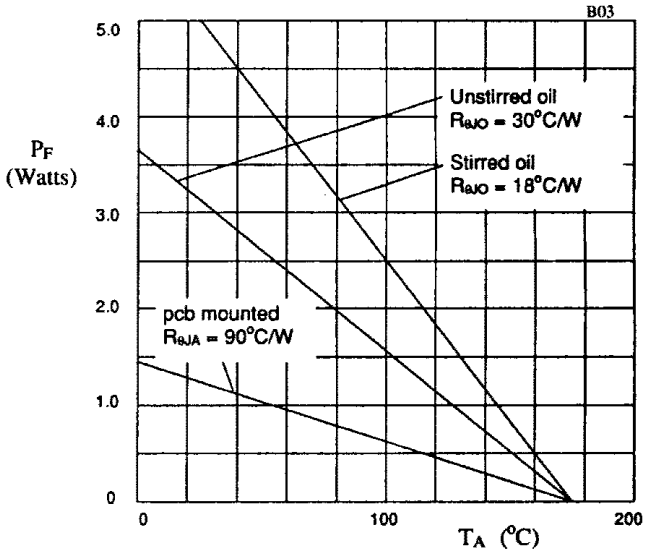

Fig 3. Power derating in air and oil.

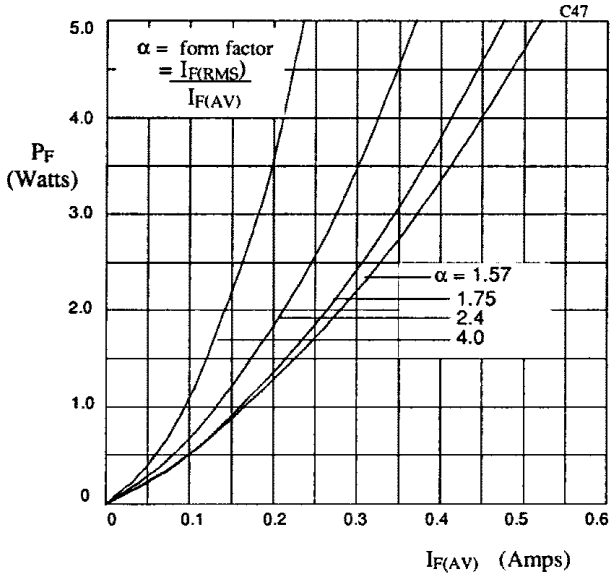

Fig 4. Forward power dissipation as a function of forward current, for sinusoidal operation.

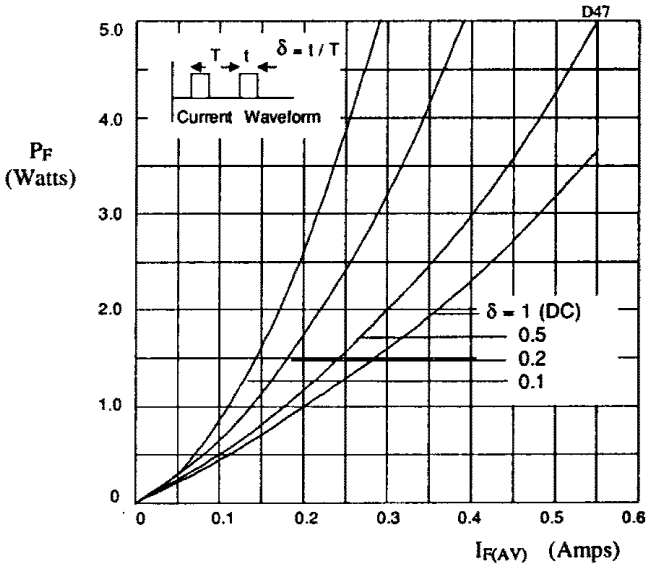

Fig 5. Forward power dissipation as a function of forward current, for square wave operation.