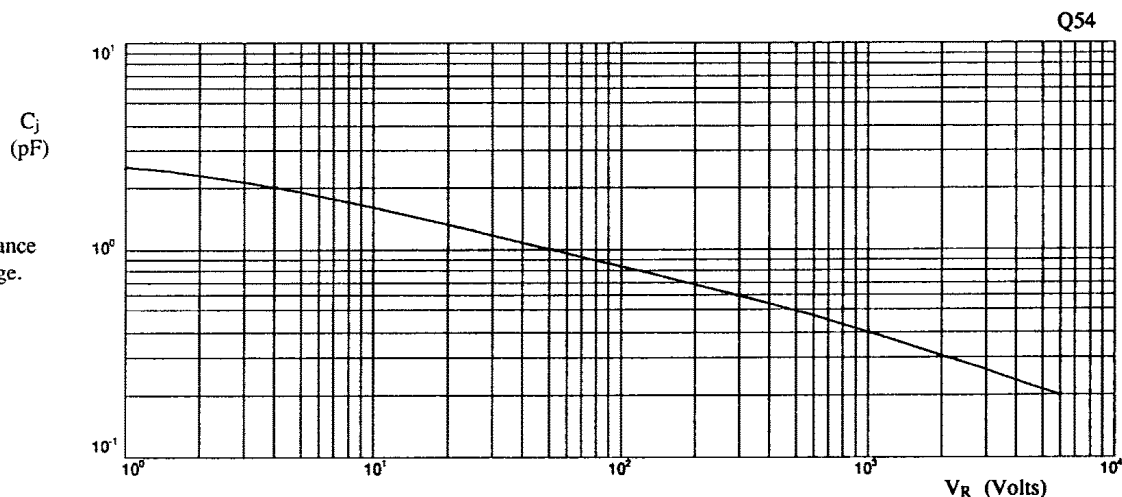


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## CHARACTERISTICS (@ 25°C unless otherwise specified)

	Symbol	F40A	F50A	F60A	Unit
Average forward current max. (pcb mounted; $T_A = 55^\circ\text{C}$ ) for sine wave	$I_{F(av)}$	← 0.12 →			A
for square wave ( $d = 0.5$ )	$I_{F(av)}$	← 0.13 →			A
Average forward current max. (unstirred oil at $55^\circ\text{C}$ ) for sine wave	$I_{F(av)}$	← 0.23 →			A
for square wave	$I_{F(av)}$	← 0.25 →			A
$I^2t$ for fusing ( $t = 8.3\text{ms}$ ) max.	$I^2t$	← 0.026 →			$\text{A}^2\text{S}$
Forward voltage drop max. @ $I_F = 50\text{mA}$ , $T_j = 25^\circ\text{C}$	$V_F$	← 8.0 →			V
Reverse current max. @ $V_{RWM}$ , $T_j = 25^\circ\text{C}$	$I_R$	← 1.0 →			$\mu\text{A}$
@ $V_{RWM}$ , $T_j = 100^\circ\text{C}$	$I_R$	← 10 →			$\mu\text{A}$
Reverse recovery time max. 50mA $I_F$ to 100mA $I_R$ . Recover to 25mA $I_{RR}$ .	$t_{rr}$	← 300 →			nS
Junction capacitance typ. @ $V_R = 5\text{V}$ , $f = 1\text{MHz}$	$C_j$	← 2.0 →			pF
Thermal resistance - junction to oil Stirred oil	$R_{\theta JO}$	← 26 →			$^\circ\text{C/W}$
Unstirred oil	$R_{\theta JO}$	← 40 →			$^\circ\text{C/W}$
Thermal resistance - junction to amb. on 0.06" thick pcb. 1oz copper.	$R_{\theta JA}$	← 95 →			$^\circ\text{C/W}$

Fig 1 Junction capacitance  
against reverse voltage.



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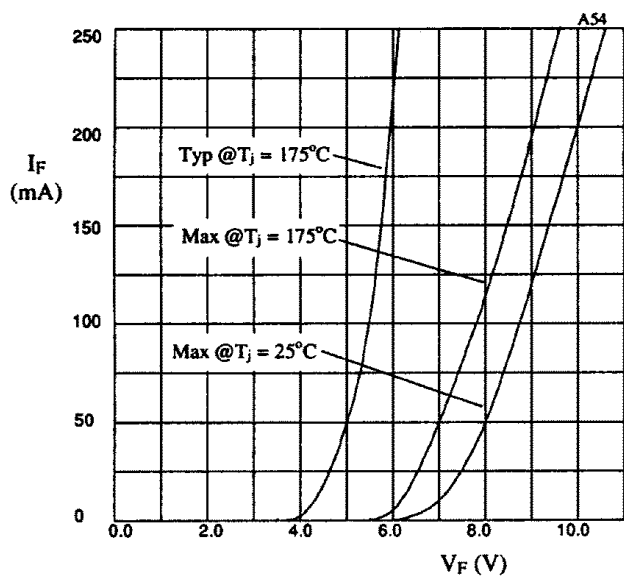


Fig 2. Forward voltage drop as a function of forward current.

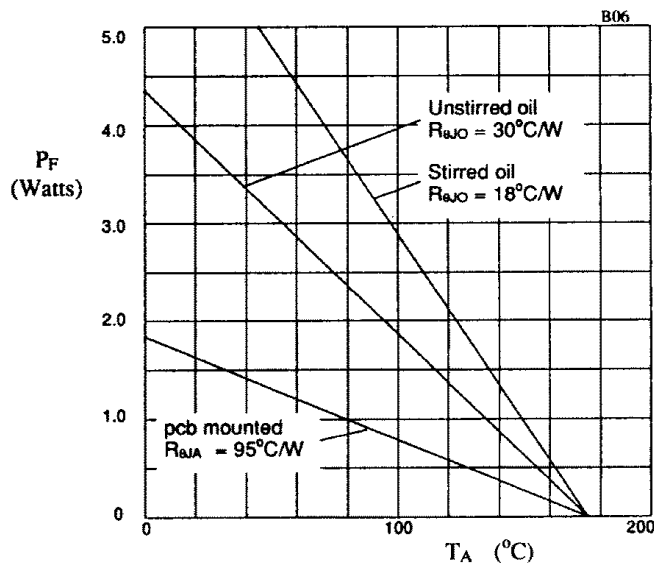


Fig 3. Power derating in air and oil.

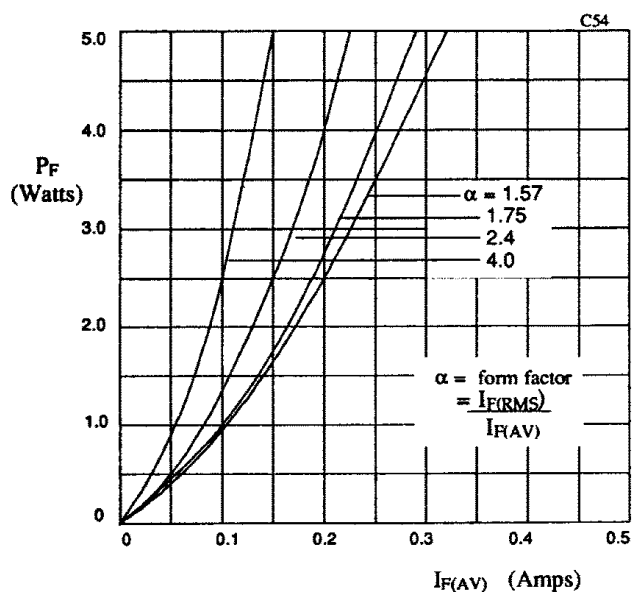


Fig 4. Forward power dissipation as a function of forward current, for sinusoidal operation.

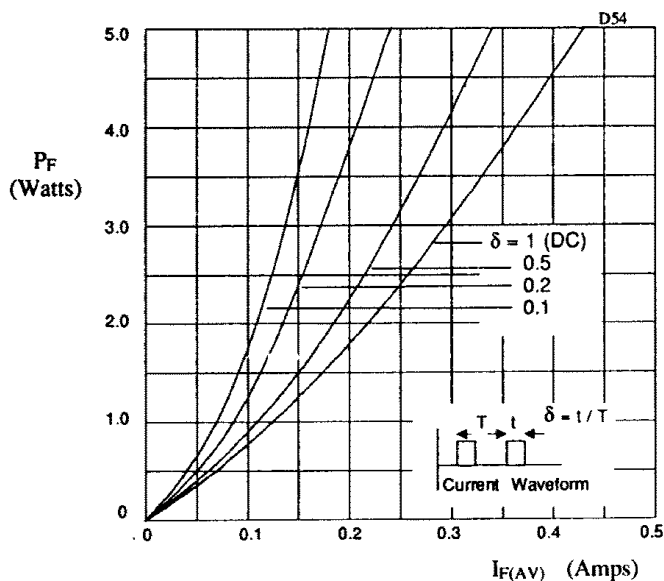


Fig 5. Forward power dissipation as a function of forward current, for square wave operation.