

January 7, 1998

ELECTRICAL CHARACTERISTICS (@ 25°C unless otherwise specified)

	Symbol	1N6073 FF05	1N6074 FF10	1N6075 FF15	Unit
Average forward current max. (pcb mounted; $T_A = 55^\circ\text{C}$) for sine wave	$I_{F(AV)}$	← 0.85 →			A
for square wave ($d = 0.5$)	$I_{F(AV)}$	← 0.90 →			A
Average forward current max. $T_L = 70^\circ\text{C}$; $L = 0"$ $T_L = 55^\circ\text{C}$; $L = 3/8"$ for sine wave	$I_{F(AV)}$	← 3.0 →			A
for square wave	$I_{F(AV)}$	← 1.7 →			A
	$I_{F(AV)}$	← 1.8 →			A
I^2t for fusing ($t = 8.3\text{ms}$) max.	I^2t	← 5.0 →			A ² S
Forward voltage drop max. @ $I_F = 1.5\text{A}$, $T_j = 25^\circ\text{C}$	V_F	← 1.2 →			V
Reverse current max. @ V_{RWM} , $T_j = 25^\circ\text{C}$	I_R	← 1.0 →			μA
@ V_{RWM} , $T_j = 100^\circ\text{C}$	I_R	← 50 →			μA
Reverse recovery time 0.5A I_F , 1.0A I_R , 0.25A I_{RR} .	t_{rr}	← 30 →			nS
Junction capacitance typ. @ $V_R = 5\text{V}$, $f = 1\text{MHz}$	C_j	← 28 →			pF

THERMAL CHARACTERISTICS

	Symbol	1N6073 FF05	1N6074 FF10	1N6075 FF15	Unit
Thermal resistance - junction to lead Lead length = 0.375"	$R_{\theta JL}$	← 46 →			°C/W
Lead length = 0.0"	$R_{\theta JL}$	← 13 →			°C/W
Thermal resistance - junction to amb. on 0.06" thick pcb. 1 oz. copper.	$R_{\theta JA}$	← 95 →			°C/W

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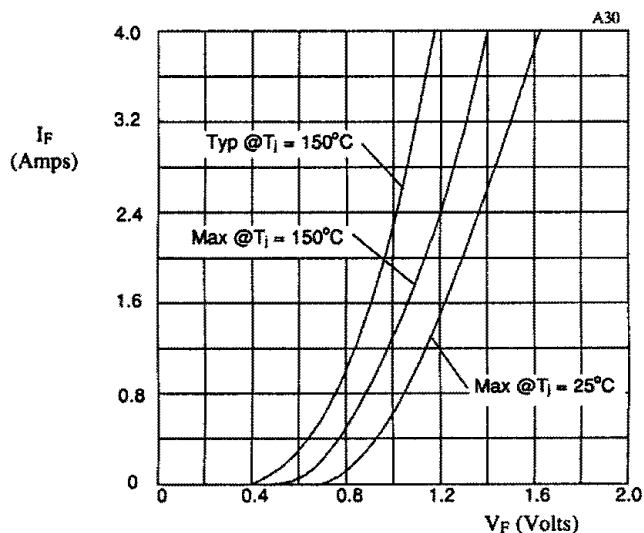


Fig 1. Forward voltage drop as a function of forward current.

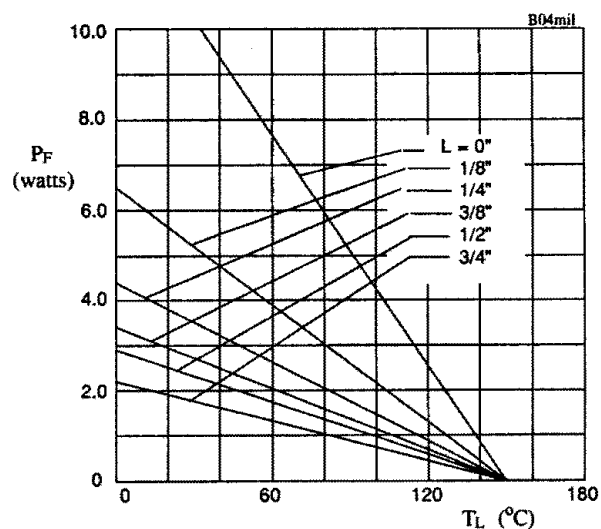


Fig 2. Maximum power versus lead temperature.

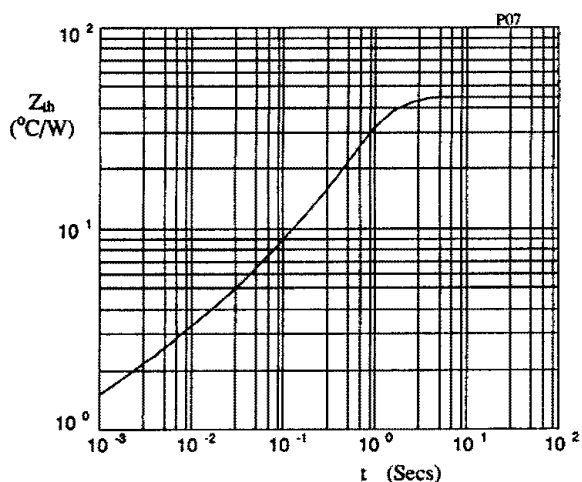


Fig 3. Transient thermal impedance characteristic.

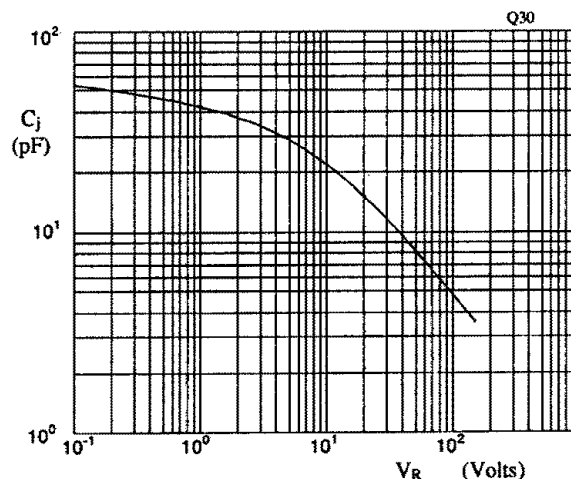


Fig 4. Typical junction capacitance as a function of reverse voltage.

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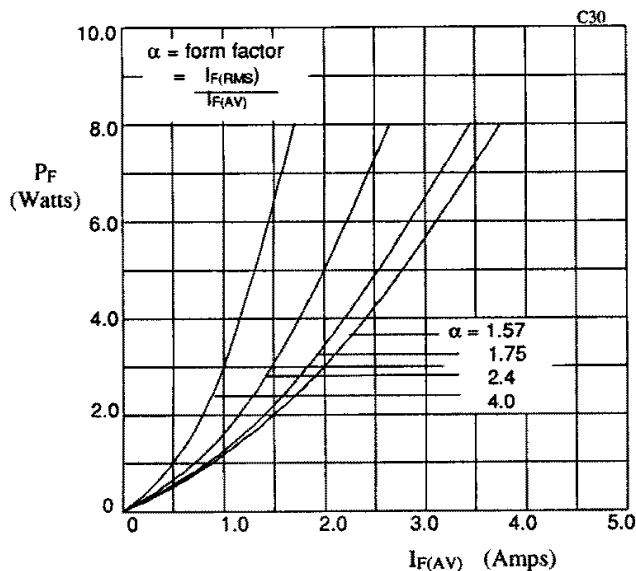


Fig 5. Forward power dissipation as a function of forward current, for sinusoidal operation.

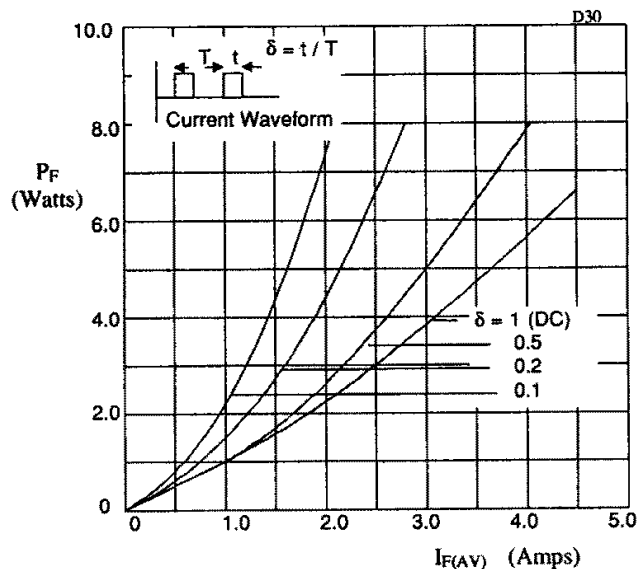


Fig 6. Forward power dissipation as a function of forward current, for square wave operation.

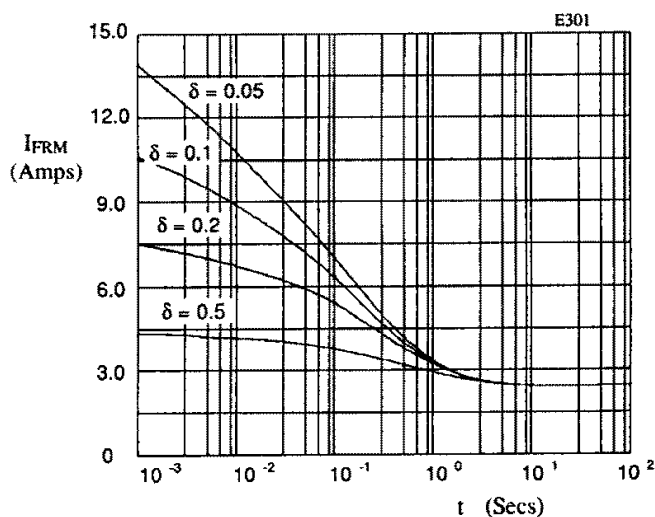


Fig 7. Maximum repetitive forward current as a function of pulse width at 55°C; $R_{\theta JL} = 45 \text{ }^{\circ}\text{C/W}$; V_{RWM} during $1 - \delta$.

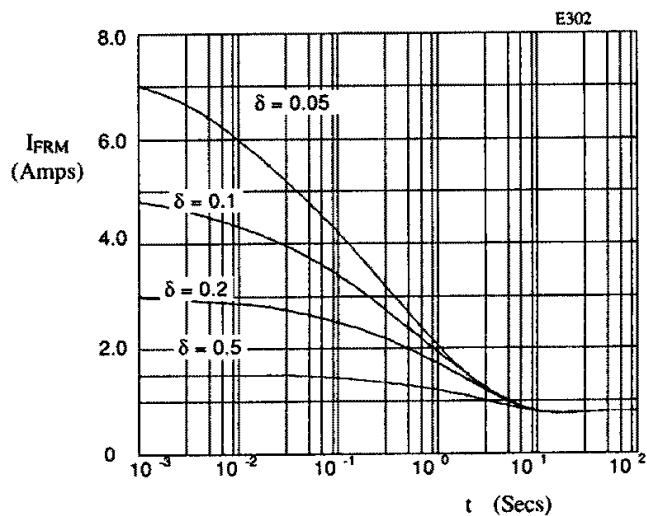


Fig 8. Maximum repetitive forward current as a function of pulse width at 100°C; $R_{\theta JL} = 110 \text{ }^{\circ}\text{C/W}$; V_{RWM} during $1 - \delta$.