Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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January 7, 1998

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QUICK REFERENCE DATA

- V_R = 1500 - 3000V
- I_F = 0.35A
- t_{rr} = 250nS
- I_R = 0.25µA

AXIAL LEADED HERMETICALLY SEALED HIGH VOLTAGE FAST RECTIFIER DIODE

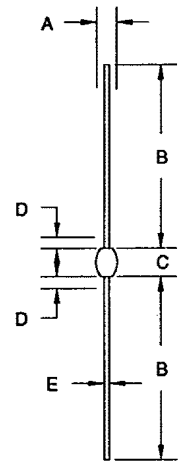
- Low reverse recovery time
- High thermal shock resistance
- Hermetically sealed with Metoxilite metal oxide
- Low switching losses
- Soft, non-snap off, recovery characteristics

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

	Symbol	F15	F20	F25	F30	Unit
Working reverse voltage	V_{RWM}	1500	2000	2500	3000	V
Repetitive reverse voltage	V_{RRM}	1500	2000	2500	3000	V
Average forward current (@ 55°C in oil)	$I_{F(AV)}$	← 0.35 →				A
Repetitive surge current (@ 55°C)	I_{FRM}	← 1.25 →				A
Non-repetitive surge current (t_p = 8.3mS, @ V_R & T_{jmax})	I_{FSM}	← 5.0 →				A
Storage temperature range	T_{STG}	← -65 to +175 →				°C
Operating temperature range	T_{OP}	← -65 to +175 →				°C

These products are available in Europe to DEF STAN 59-61 (PART 80)/034 to F and FX levels.

MECHANICAL



G66

DIM	DIMENSIONS MM MIN	MM MAX	INCHES MIN	INCHES MAX	NOTE
A	-	2.3	-	.09	-
B	25.4	33.0	1.00	1.30	-
C	4.6	5.3	.18	.21	-
D	-	.80	-	.030	1
E	.53	.66	.021	.026	-

NOTES:

1. LEAD DIAMETER UNCONTROLLED OVER THIS REGION.

Weight = 0.011oz

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

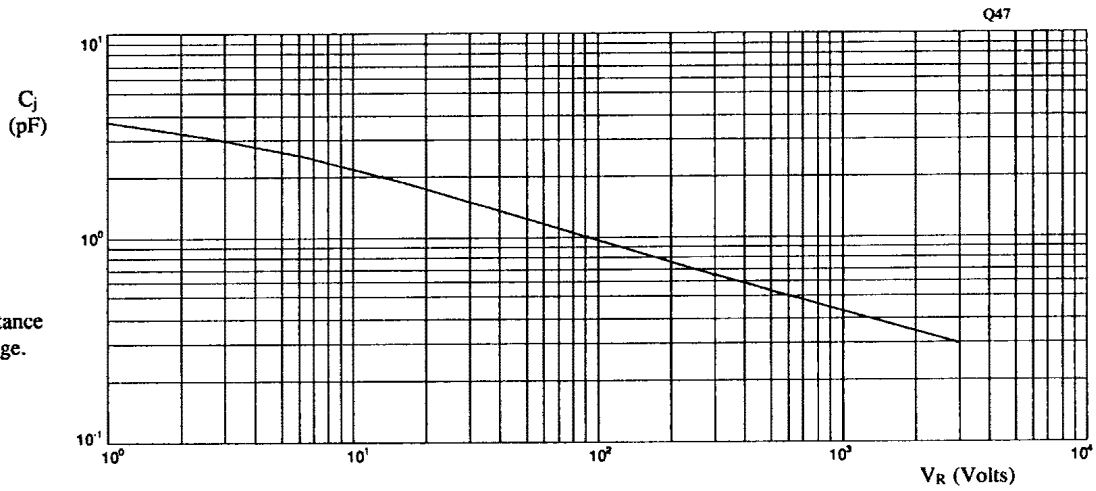


Fig 1. Junction capacitance against reverse voltage.

January 7, 1998

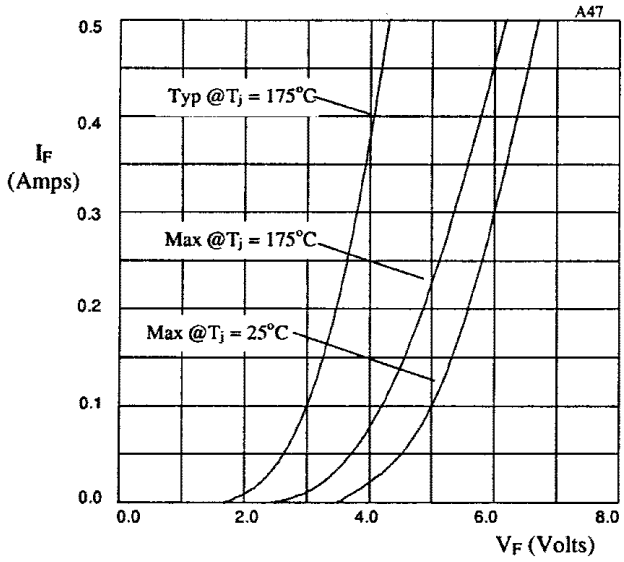


Fig 2. Forward voltage drop as a function of forward current.

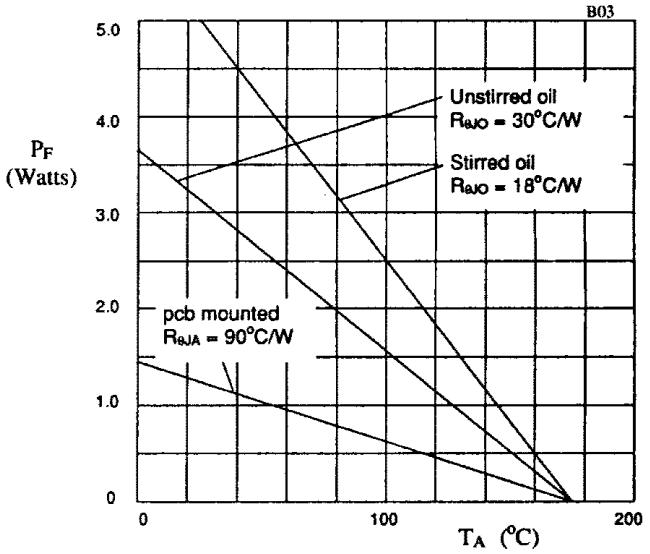


Fig 3. Power derating in air and oil.

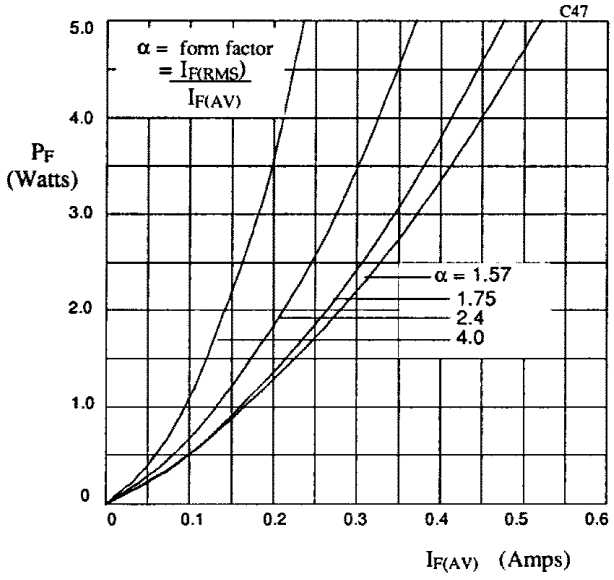


Fig 4. Forward power dissipation as a function of forward current, for sinusoidal operation.

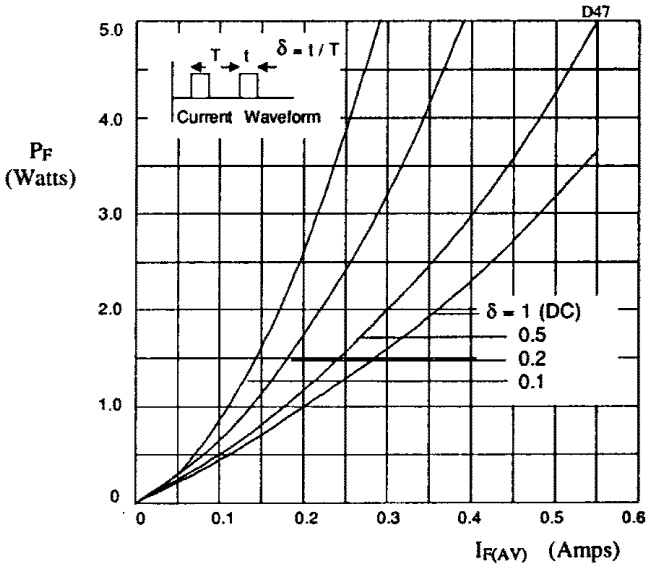


Fig 5. Forward power dissipation as a function of forward current, for square wave operation.