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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AXIAL LEADED HERMETICALLY SEALED FAST RECTIFIER DIODE

- Low reverse recovery time
- Hermetically sealed in Metoxilite fused metal oxide
- Low switching losses
- Low forward voltage drop
- Soft, non-snap off, recovery characteristics

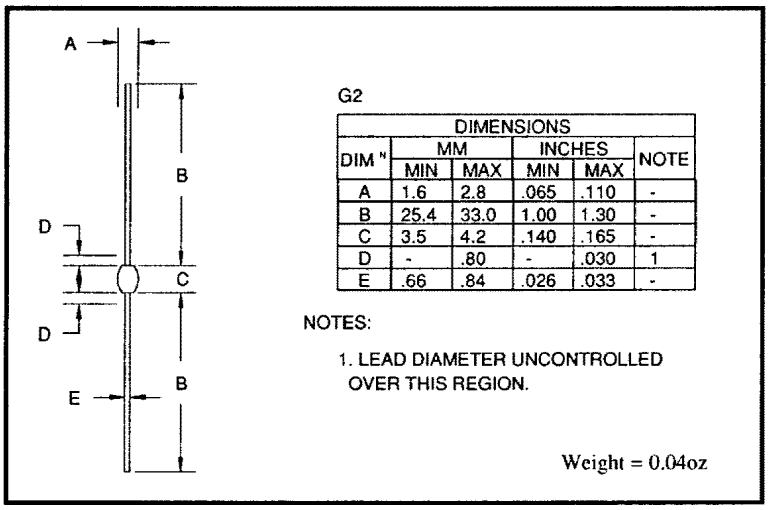
QUICK REFERENCE DATA

- V_R = 200 - 1000V
- I_F = 2.00A
- t_{rr} = 150 - 500nS
- I_R = 0.5µA

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

	Symbol	1N5615 S2F	1N5617 S4F	1N5619 S6F	1N5621 S8F	1N5623 S0F	Unit
Working reverse voltage	V_{RWM}	200	400	600	800	1000	V
Repetitive reverse voltage	V_{RRM}	200	400	600	800	1000	V
Average forward current (@ 55°C, lead length 0.375")	$I_{F(AV)}$	2.0					A
Repetitive surge current (@ 55°C in free air, lead length 0.375")	I_{FRM}	6.0					A
Non-repetitive surge current (t_p = 8.3mS, @ V_R & T_{jmax})	I_{FSM}	25					A
Storage temperature range	T_{STG}	-65 to +175					°C
Operating temperature range	T_{OP}	-65 to +175					°C

MECHANICAL



G2

DIM	DIMENSIONS MM MIN	MM MAX	INCHES MIN	INCHES MAX	NOTE
A	1.6	2.8	.065	.110	-
B	25.4	33.0	1.00	1.30	-
C	3.5	4.2	.140	.165	-
D	-	.80	-	.030	1
E	.66	.84	.026	.033	-

NOTES:

1. LEAD DIAMETER UNCONTROLLED OVER THIS REGION.

Weight = 0.04oz

These products are qualified to MIL-PRF-19500/429 and are preferred parts as listed in MIL-STD-701.
They can be supplied fully released as JAN, JANTX, JANTXV and JANS version.
These products are qualified in Europe to DEF STAN 59-61 (PART 80)/029.

ELECTRICAL CHARACTERISTICS (@ 25°C unless otherwise specified)

	Symbol	1N5615 S2F	1N5617 S4F	1N5619 S6F	1N5621 S8F	1N5623 S0F	Unit
Average forward current max. (pcb mounted; T_A = 55°C)							
for sine wave	$I_{F(AV)}$	←		1.00		→	A
for square wave (d = 0.5)	$I_{F(AV)}$	←		1.05		→	A
Average forward current max. (T_L = 55°C; L = 3/8")							
for sine wave	$I_{F(AV)}$	←		1.95		→	A
for square wave	$I_{F(AV)}$	←		2.00		→	A
I^2t for fusing (t = 8.3mS) max.	I^2t	←		2.5		→	A^2S
Forward voltage drop max. @ I_F = 1.0A, T_j = 25°C	V_F	←		1.2		→	V
Reverse current max.							
@ V_{RWM}, T_j = 25°C	I_R	←		0.5		→	µA
@ V_{RWM}, T_j = 100°C	I_R	←		25		→	µA
Reverse recovery time max. 0.5A I_F to 1.0A I_R. Recovers to 0.25A I_{RR}.	t_{rr}	150	150	250	300	500	nS
Junction capacitance typ. @ V_R = 5V , f = 1MHz	C_j	27	27	27	18	18	pF

THERMAL CHARACTERISTICS

	Symbol	1N5615 S2F	1N5617 S4F	1N5619 S6F	1N5621 S8F	1N5623 S0F	Unit
Thermal resistance - junction to lead							
Lead length = 0.375"	$R_{\theta JL}$	←		38		→	°C/W
Lead length = 0.0"	$R_{\theta JL}$	←		7		→	°C/W
Thermal resistance - junction to amb. on 0.06" thick pcb. 1 oz. copper.	$R_{\theta JA}$	←		95		→	°C/W

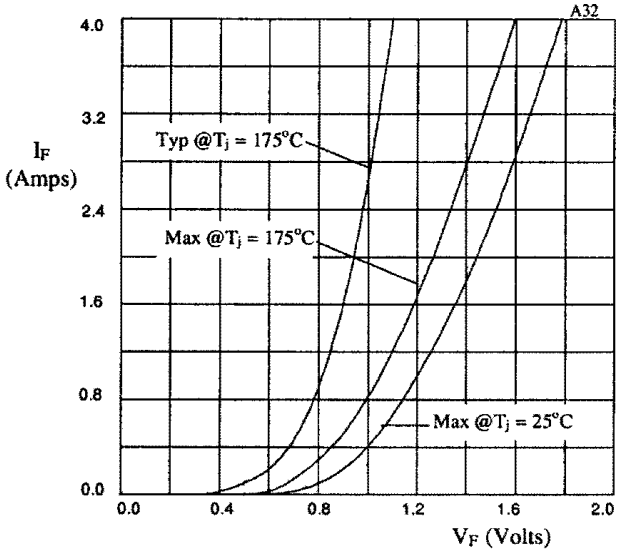


Fig 1. Forward voltage drop as a function of forward current.

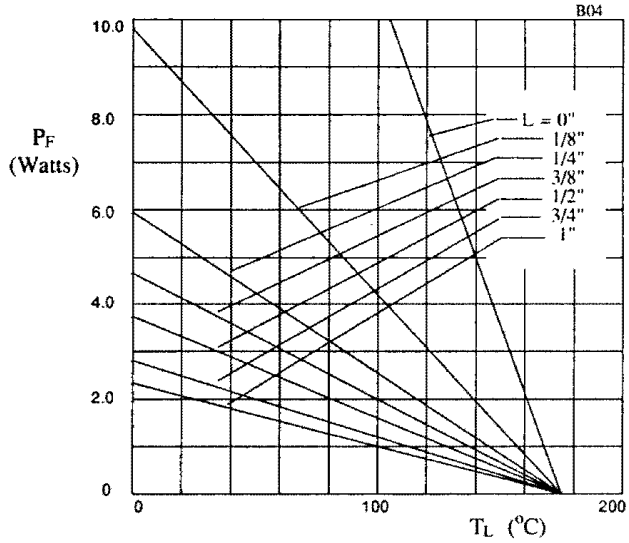


Fig 2. Maximum power versus lead temperature.

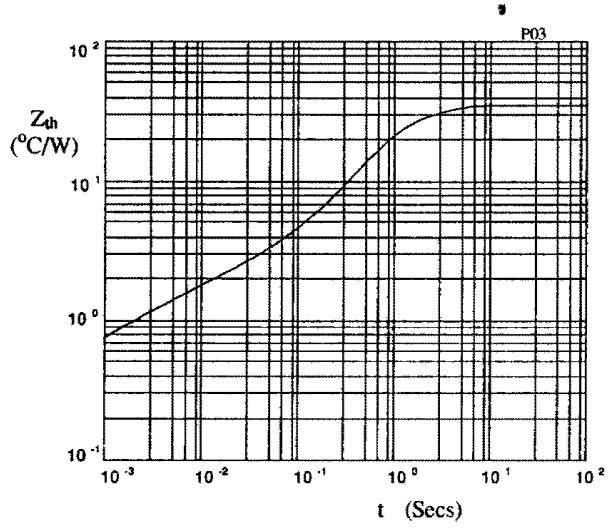


Fig 3. Transient thermal impedance characteristic.

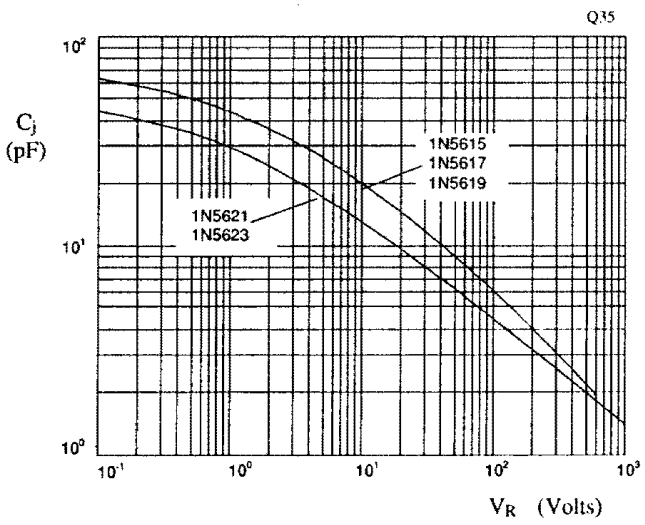


Fig 4. Typical junction capacitance as a function of reverse voltage.

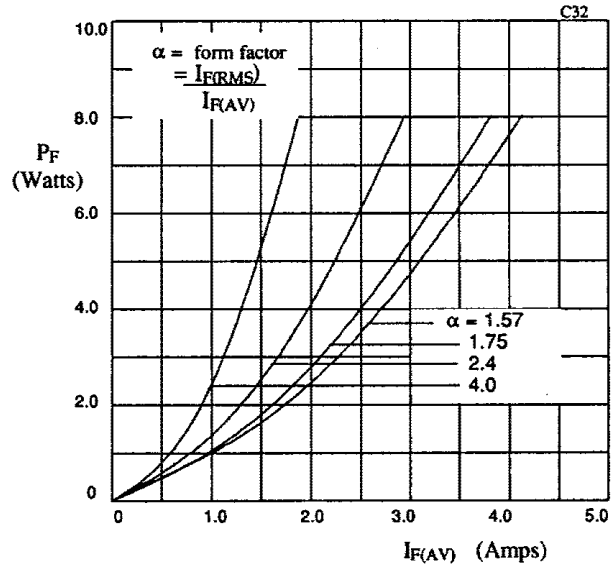


Fig 5. Forward power dissipation as a function of forward current, for sinusoidal operation.

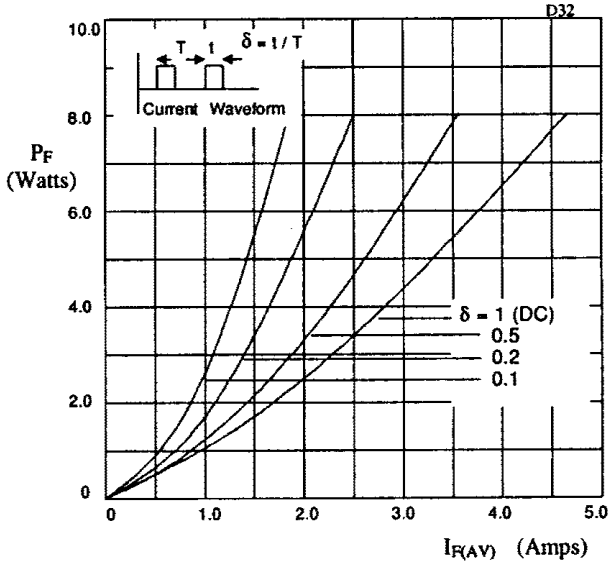


Fig 6. Forward power dissipation as a function of forward current, for square wave operation.

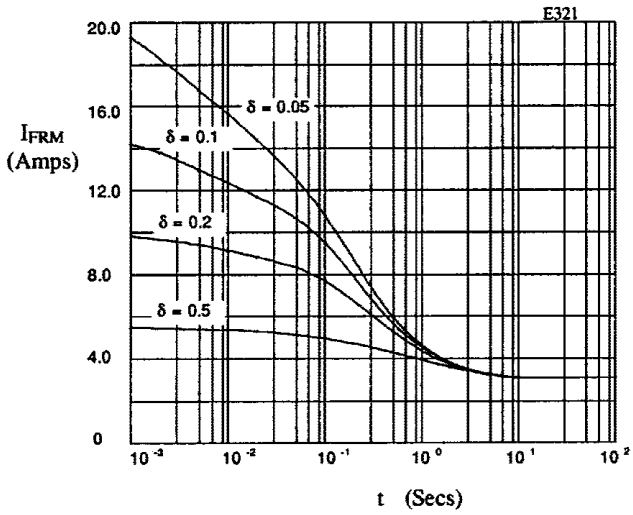


Fig 7. Typical repetitive forward current as a function of pulse width at 55°C; $R_{\theta JL}$ = 35 °C/W; V_{RWM} during 1 - δ.

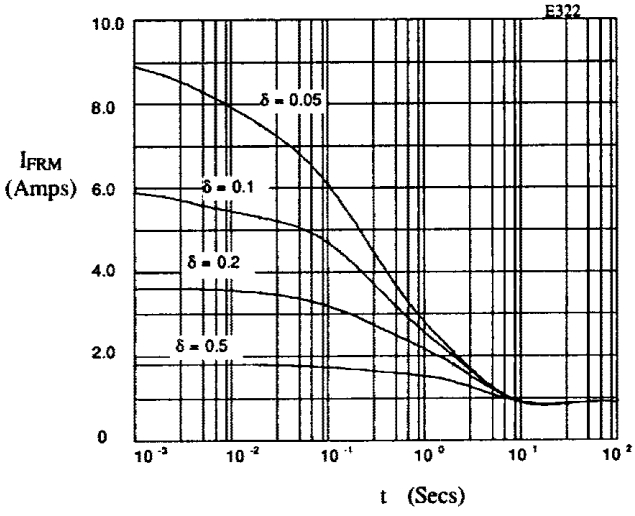


Fig 8. Typical repetitive forward current as a function of pulse width at 100°C; $R_{\theta JL}$ = 95 °C/W; V_{RWM} during 1 - δ.