GST2035B08EIF

20A TRIAC

Product Description

It is a Triac with V_{RRM} 800V and $I_{T(RMS)}$ 20A.

Features

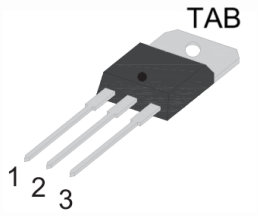
- Glass Passivated Chip Junction
- High Voltage and Surge Capability
- Triggering in Three Quadrants

Mechanical Data

- TO-220EI-3L Package (Insulated)
- RoHS Compliant and Halogen Free

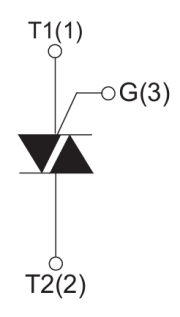
Packages & Pin Assignments

TO-220EI-3L (Insulated)



Pin	Symbol	Description
1	T1	Terminal 1
2	T2	Terminal 2
3	G	Gate
TAB	-	Insulated from other pins

Equivalent Circuit



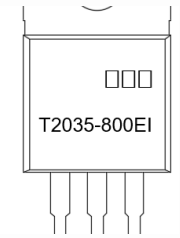
Ordering and Marking Information

Ordering Information				
Part Number	**Package**	**Marking**	**Quantity**	**Packaging Type**
GST2035B08EIF	TO-220EI-3L	□□□ T2035-800EI	50 PCS	Tube

GST2035B 1 1 2 2 **F**

- **Product Code:**
  GST2035B
- **Voltage Code:**
  1 1 is **08** for 800 V_{RRM}
- **Package Code:**
  2 2 **EI** for TO-220EI-3L
- **Green Level:**
  F for RoHS Compliant and Halogen Free

Marking Information



- **Product Code:**
  T2035-800EI
- **GS Code:**
  □□□

Absolute Maximum Ratings (T_A=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{DRM}	Repetitive peak off-state voltage (T_J = 25°C)	800	V
V_{RRM}	Repetitive peak reverse voltage (T_J = 25°C)	800	V
$I_{T(RMS)}$	RMS on-state current (T_C=70°C)	20	A
I_{TSM}	Non repetitive surge peak on-state current (180° conduction angle, f = 50Hz, t_P = 20ms, full cycle)	200	A
I^2t	Value for fusing (t_P = 10ms)	200	A^2S
dI/dt	Critical rate of rise of on-state current (I_G = 2×I_{GT}, t_r ≤ 100ns)	100	A/µs
I_{GM}	Peak gate current	4	A
$P_{G(AV)}$	Average gate power dissipation	1	W
$R_{\Theta JC}$	Thermal Resistance, Junction to Case	1.9	°C/W
T_J	Junction Temperature Range	-40 to +150	°C
T_{STG}	Storage Temperature Range	-40 to +150	°C

Electrical Characteristics (T_A=25°C unless otherwise specified)

Logic Level & Snubberless (3 Quadrants)

Symbol	Test Condition	Quadrant	Min	Max	Unit
I_{GT}	V_D = 12V, R_L = 100Ω	I - II - III	-	35	**mA**
V_{GT}	V_D = 12V, R_L = 100Ω	I - II - III	-	1.3	**V**
V_{GD}	V_D = V_{DRM}, T_J = 125°C	I - II – III	0.2	-	**V**
I_L	I_G = 1.2×I_{GT}	I - III	-	50	**mA**
		II		90	
I_H	V_{AK} = 12V, I_{GK} = 100mA		-	40	**mA**
dV/dt	V_D = 67% V_{DRM}, Gate Open	T_J = 125°C	500	-	**V/µs**
V_{TM}	I_{TM} = 28A, t_P = 380µs	T_J = 25°C	-	1.5	**V**
$I_{DRM/RRM}$	V_D = V_{DRM}, V_R = V_{RRM}	T_J = 25°C	-	5	**µA**
		TJ = 125°C	-	2.5	**mA**

Typical Performance Characteristics (T_A=25°C unless otherwise specified)

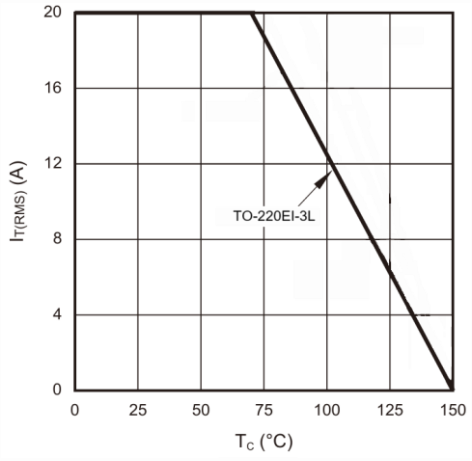


Figure 1. $I_{T(RMS)}$ vs. T_C

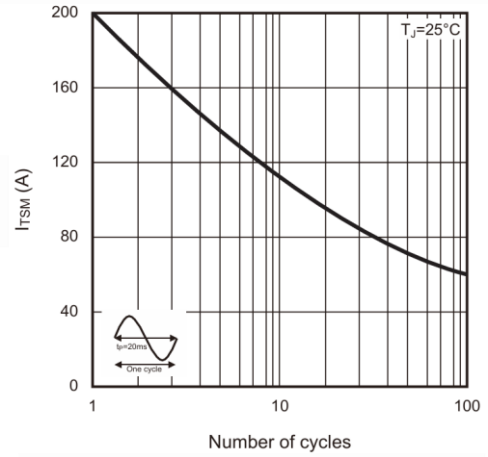


Figure 2. I_{TSM} vs. Number of Cycle

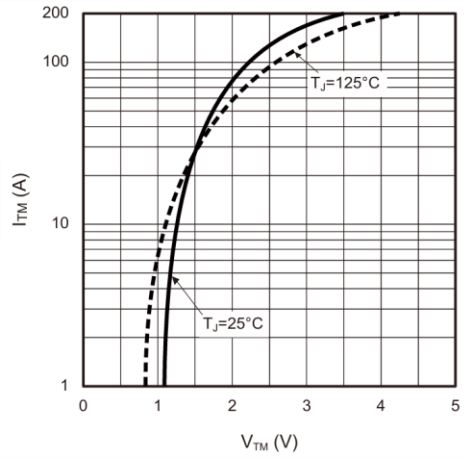


Figure 3. ON State Characteristics

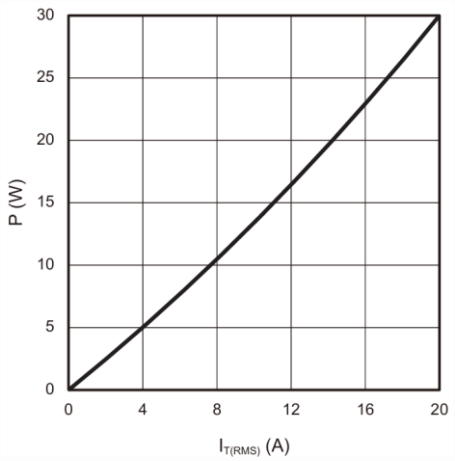


Figure 4. P_D vs. $I_{T(RMS)}$

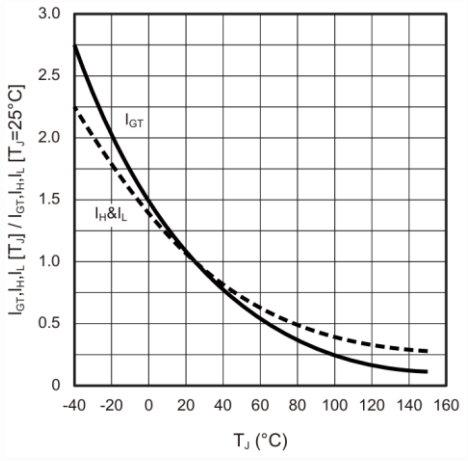
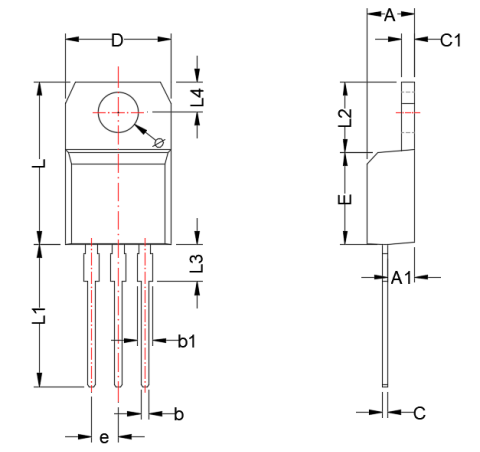


Figure 5. Relative Variations of I_G, I_H and I_L vs. T_J

TO-220EI-3L

Package Dimension



Dimensions				
Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	4.38	4.61	0.172	0.181
A1	2.35	2.75	0.093	0.108
b	0.60	0.92	0.024	0.036
b1	1.14	1.70	0.045	0.067
C	0.35	0.70	0.014	0.028
C1	1.15	1.36	0.045	0.054
D	9.80	10.40	0.386	0.409
E	8.60	9.70	0.339	0.382
e	2.54 BSC		0.100 BSC	
L	14.80	16.10	0.583	0.634
L1	13.00	14.00	0.512	0.551
L2	5.85	6.95	0.230	0.274
L3	2.80	4.20	0.110	0.165
L4	2.65	3.10	0.104	0.122
Ø	3.70	3.95	0.146	0.156

NOTE:
Dimensions are exclusive of Burrs, Mold Flash and Tie Bar extrusions.

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CONTACT US

GS Headquarter	
	4F, NO.43-1, Lane 11, Sec. 6, Minquan E. Rd Neihu District, Taipei City 114761, Taiwan (R.O.C).
	886-2-2657-9980
	886-2-2657-3630
	sales_twn@gs-power.com

RD Division	
	824 Bolton Drive Milpitas. CA. 95035
	1-408-457-0587