


25, 35A GLASS PASSIVATED THREE-PHASE BRIDGE RECTIFIER

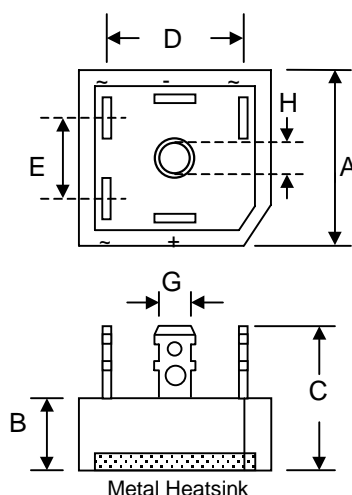
Features

- Glass Passivated Die Construction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards
-  Recognized File # E157705

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Mechanical Data

- Case: Epoxy Case with Heat Sink Internally Mounted in the Bridge Encapsulation
- Terminals: Plated Faston Lugs Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Weight: 21 grams (approx.)
- Mounting Position: Bolt Down on Heatsink With Silicone Thermal Compound Between Bridge and Mounting Surface for Maximum Heat Transfer Efficiency
- Mounting Torque: 23 cm·kg (20 in·lbs) Max.
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 7**



MT		
Dim	Min	Max
A	28.40	28.70
B	—	10.00
C	22.86	23.86
D	—	25.30
E	16.00 Typical	
G	6.35 x 0.80	
H	5.10 Ø	5.30 Ø
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

Voltage Ratings

Characteristics	Symbol	MT25, 35										Unit
		00	01	02	04	06	08	10	12	14	16	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	50	100	200	400	600	800	1000	1200	1400	1600	V
Peak Non-Repetitive Reverse Voltage	V _{RSM}	75	150	275	500	725	900	1100	1300	1500	1700	V
RMS Reverse Voltage	V _{R(RMS)}	35	70	140	280	420	560	700	840	980	1120	V

Forward Conduction

Characteristic	Symbol	MT25	MT35	Unit
Average Rectified Output Current MT25 @ $T_C = 70^\circ\text{C}$, MT35 @ $T_C = 60^\circ\text{C}$	I_O	25	35	A
Non-Repetitive Peak Forward Surge Current (No Voltage Reapplied $t = 8.3\text{ms}$ at 60Hz) (No Voltage Reapplied $t = 10\text{ms}$ at 50Hz) (100% V_{RRM} Reapplied $t = 8.3\text{ms}$ at 60Hz) (100% V_{RRM} Reapplied $t = 8.3\text{ms}$ at 50Hz)	I_{FSM}	375 360 314 300	500 475 420 400	A
I^2t Rating for Fusing (No-Voltage Reapplied $t = 8.3\text{ms}$ at 60Hz) (No-Voltage Reapplied $t = 10\text{ms}$ at 50Hz) (100% V_{RRM} Reapplied $t = 8.3\text{ms}$ at 60Hz) (100% V_{RRM} Reapplied $t = 10\text{ms}$ at 50Hz)	I^2t	580 635 410 450	1030 1130 730 800	A^2s
Maximum Forward Voltage Drop @ $T_j = 25^\circ\text{C}$, @ $I_{FM} = 40\text{A}_{pk}$ per single junction	V_F	1.26	1.19	V
Peak Reverse Current (per leg) @ $T_j = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_j = 125^\circ\text{C}$	I_R	10 5.0		μA mA
RMS Isolation Voltage from Case to Lead	V_{ISO}	2500		V

Thermal Characteristics

Thermal Resistance Junction to Case at DC Operation per Bridge	$R_{\theta JC}$	1.42	1.16	K/W
Thermal Resistance Case to Heatsink Mounting Surface, Smooth, Flat and Greased	$R_{\theta CS}$	0.2		K/W
Operating Temperature Range	T_j	-40 to +150		$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-40 to +150		$^\circ\text{C}$

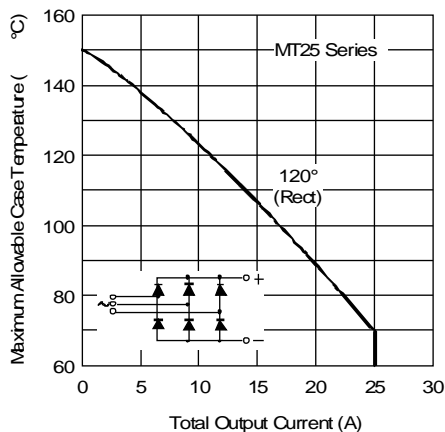


Fig. 1 - Current Ratings Characteristics

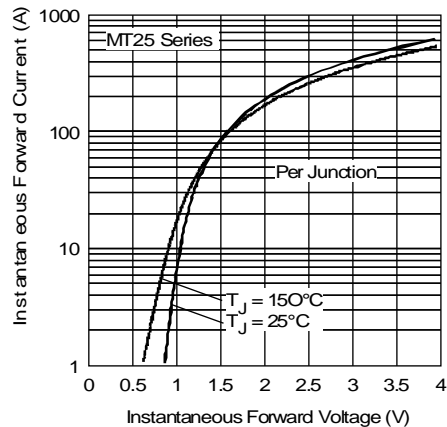


Fig. 2 - Forward Voltage Drop Characteristics

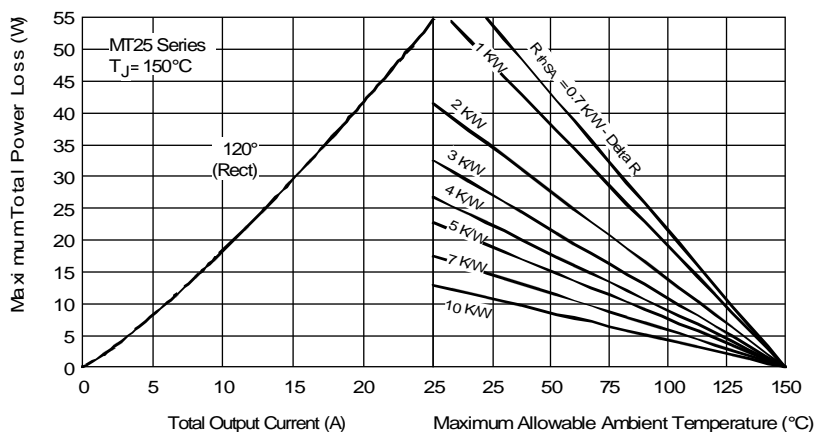


Fig. 3 - Total Power Loss Characteristics

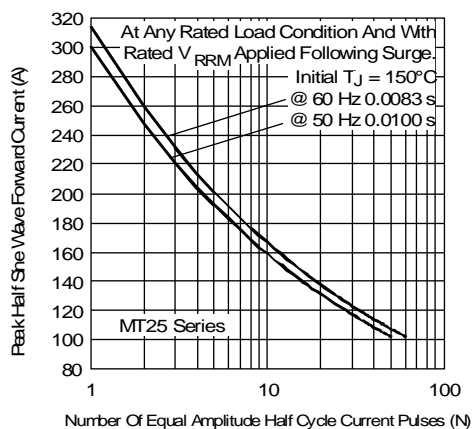


Fig. 4 - Maximum Non-Repetitive Surge Current

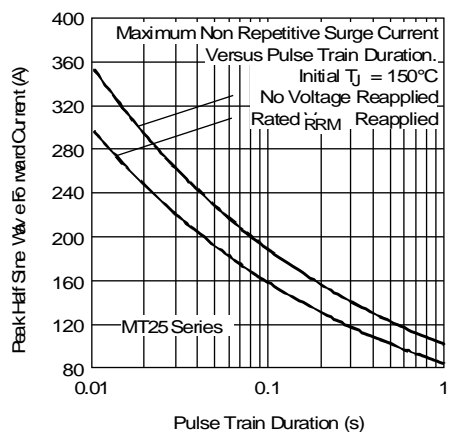


Fig. 5 - Maximum Non-Repetitive Surge Current

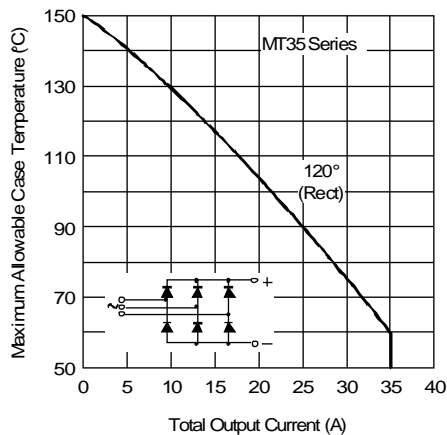


Fig. 6 - Current Ratings Characteristics

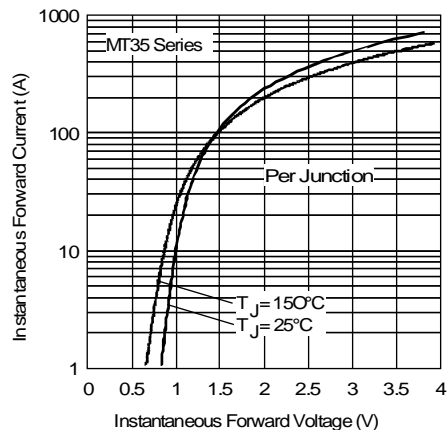


Fig. 7 - Forward Voltage Drop Characteristics

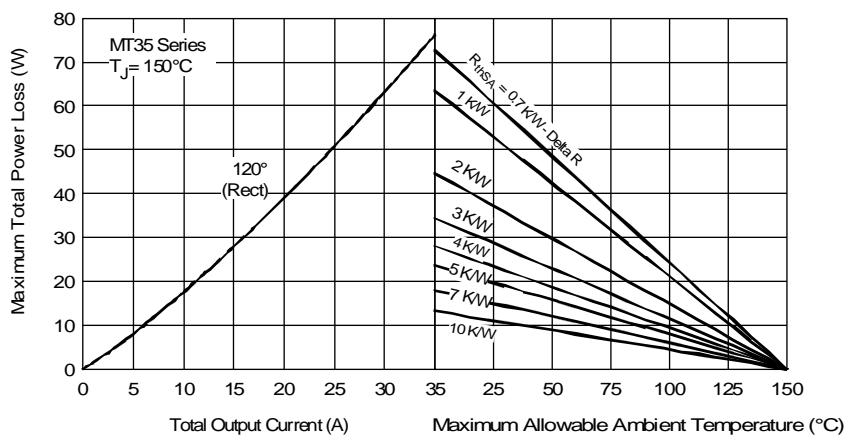


Fig. 8 - Total Power Loss Characteristics

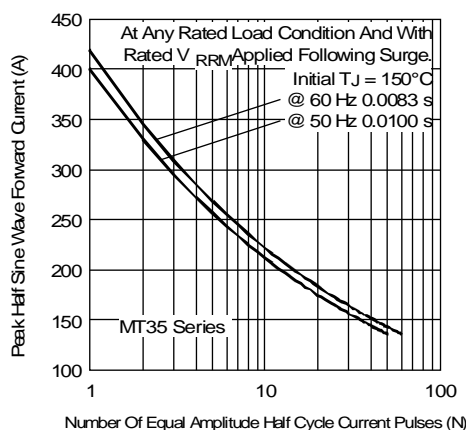


Fig. 9 - Maximum Non-Repetitive Surge Current

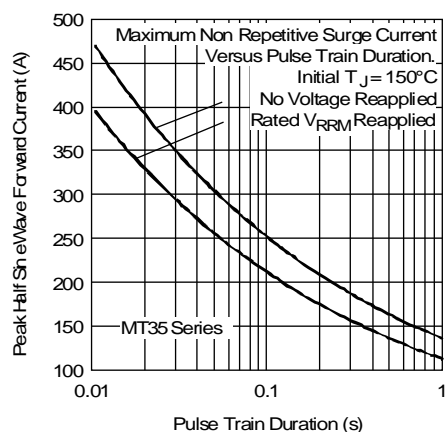


Fig. 10 - Maximum Non-Repetitive Surge Current

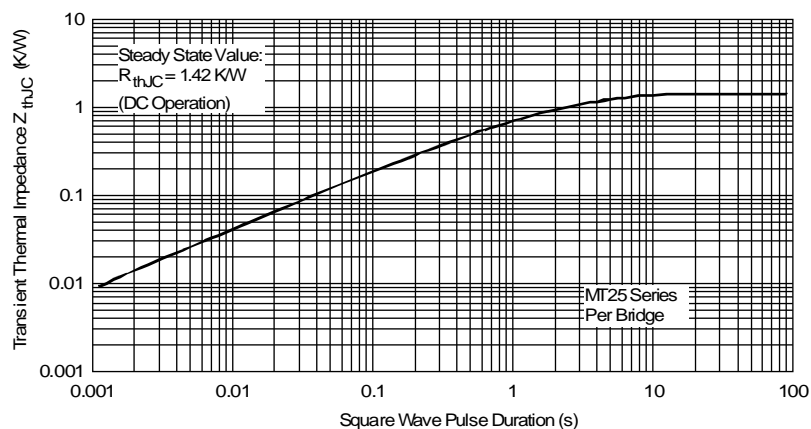


Fig. 11 - Thermal Impedance Z_{thJC} Characteristics

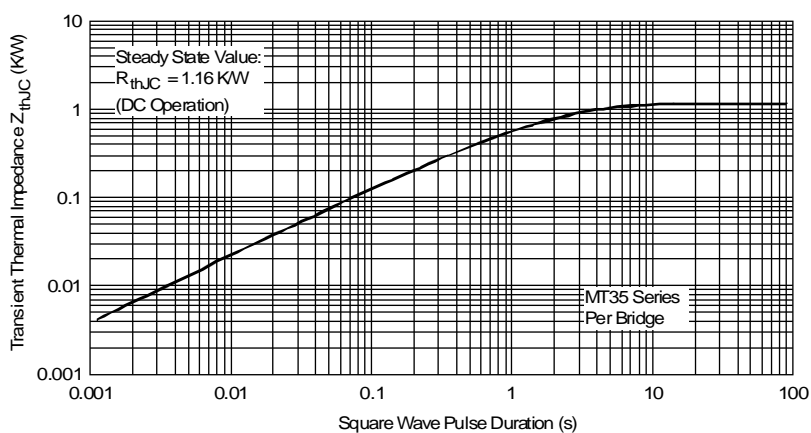
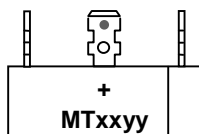
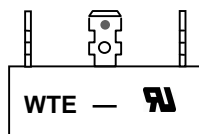


Fig. 12 - Thermal Impedance Z_{thJC} Characteristics

MARKING INFORMATION



WTE = Manufacturer's Logo
MTxxyy = Device Number
xx = 25 or 35
yy = 00, 01, 02, 04, 06, 08, 10, 12, 14 or 16
Polarity = As Marked on Body

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PACKAGING INFORMATION

BULK

Inner Box Size L x W x H (mm)	Quantity (PCS)	Carton Size L x W x H (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
195 x 195 x 40	50	405 x 205 x 240	500	12.0

Note: 1. Paper box, white or brown color.

ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
MTxx00	Square Bridge	50 Units/Box
MTxx01	Square Bridge	50 Units/Box
MTxx02	Square Bridge	50 Units/Box
MTxx04	Square Bridge	50 Units/Box
MTxx06	Square Bridge	50 Units/Box
MTxx08	Square Bridge	50 Units/Box
MTxx10	Square Bridge	50 Units/Box
MTxx12	Square Bridge	50 Units/Box
MTxx14	Square Bridge	50 Units/Box
MTxx16	Square Bridge	50 Units/Box

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order Lead Free version (with Lead Free finish), add “-LF” suffix to part number above. For example, MT2500-LF.**

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WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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