

MT25, 35 SERIES

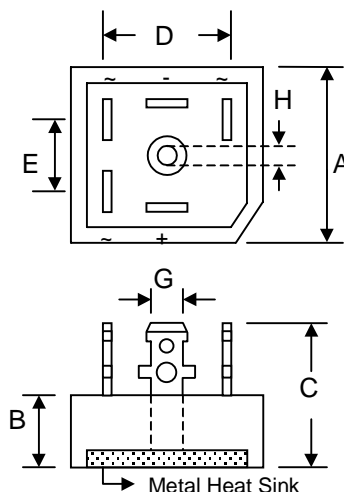
25, 35A THREE PHASE BRIDGE RECTIFIER

Features

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

Mechanical Data

- Case: Epoxy Case with Heat Sink Internally Mounted in the Bridge Encapsulation
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Weight: 20 grams (approx.)
- Mounting Position: Bolt Down on Heatsink With Silicone Thermal Compound Between Bridge and Mounting Surface for Maximum Heat Transfer Efficiency
- Mounting Torque: 20 in. lbs Max.
- Marking: Type Number



MT		
Dim	Min	Max
A	28.40	28.70
B	10.97	11.23
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	-00	-01	-02	-04	-06	-08	-10	-12	-14	-16	Unit
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°C, MT35 @ T _C = 60°C	I _O	25	35	A
Non-Repetitive Peak Forward Surge Current (No Voltage Reapplied t = 8.3ms at 60Hz) (No Voltage Reapplied t = 10ms at 50Hz) (100% V _{RRM} Reapplied t = 8.3ms at 60Hz) (100% V _{RRM} Reapplied t = 8.3ms at 50Hz)	I _{FSM}	375 360 314 300	500 475 420 400	A

I ² t Rating for Fusing (No-Voltage Reapplied t = 8.3ms at 60Hz) (No-Voltage Reapplied t = 10ms at 50Hz) (100% V _{RRM} Reapplied t = 8.3ms at 60Hz) (100% V _{RRM} Reapplied t = 10ms at 50Hz)	I ² t	580 635 410 450	1030 1130 730 800	A ² s
Forward Voltage (per element) @T _j = 25°C, @I _{FM} = 40A _{pk} per single junction	V _F	1.26	1.19	V
Peak Reverse Current (per leg) @T _j = 25°C At Rated DC Blocking Voltage @T _j = 125°C	I _R	10 5.0		μA mA
RMS Isolation Voltage from Case to Lead	V _{ISO}	2500		V

Thermal Characteristics

Operating Temperature Range	T _j	-40 to +150		°C
Storage Temperature Range	T _{STG}	-40 to +150		°C
Thermal Resistance Junction to Case at DC Operation per Bridge	R _{θJC}	1.42	1.16	K/W
Thermal Resistance Case to Heatsink Mounting Surface, Smooth, Flat and Greased	R _{θCS}	0.2		K/W

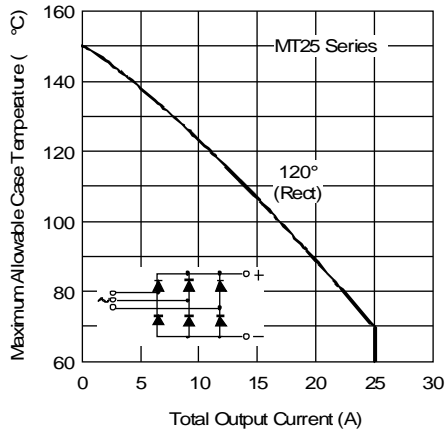


Fig. 1 - Current Ratings Characteristics

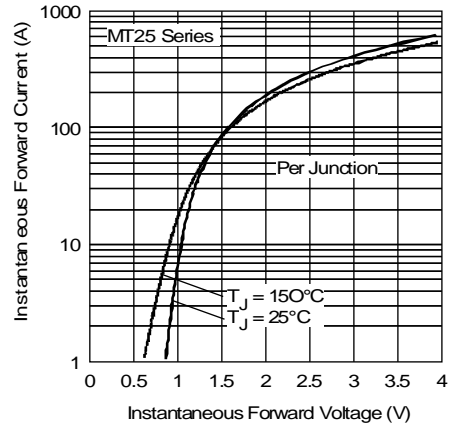


Fig. 2 - Forward Voltage Drop Characteristics

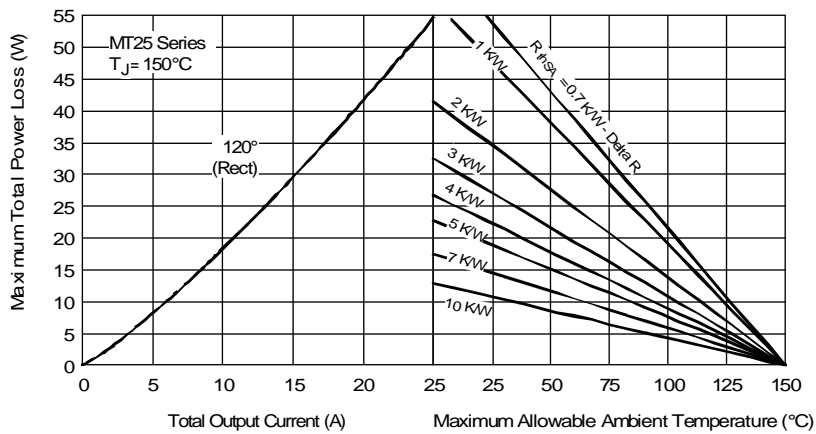


Fig. 3 - Total Power Loss Characteristics

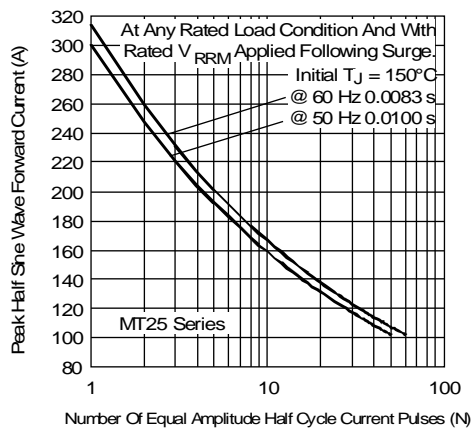


Fig. 4 - Maximum Non-Repetitive Surge Current

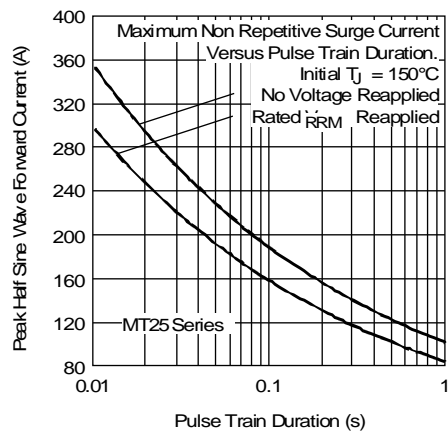


Fig. 5 - Maximum Non-Repetitive Surge Current

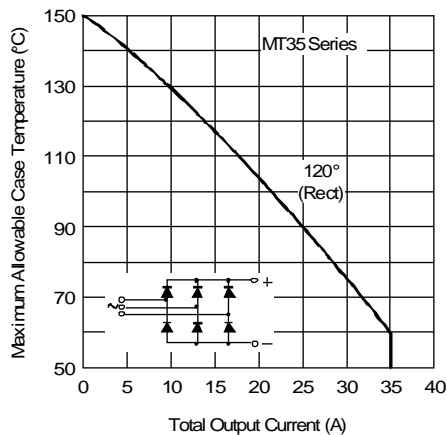


Fig. 6 - Current Ratings Characteristics

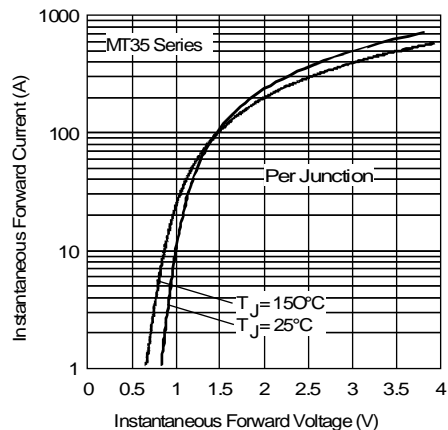


Fig. 7 - Forward Voltage Drop Characteristics

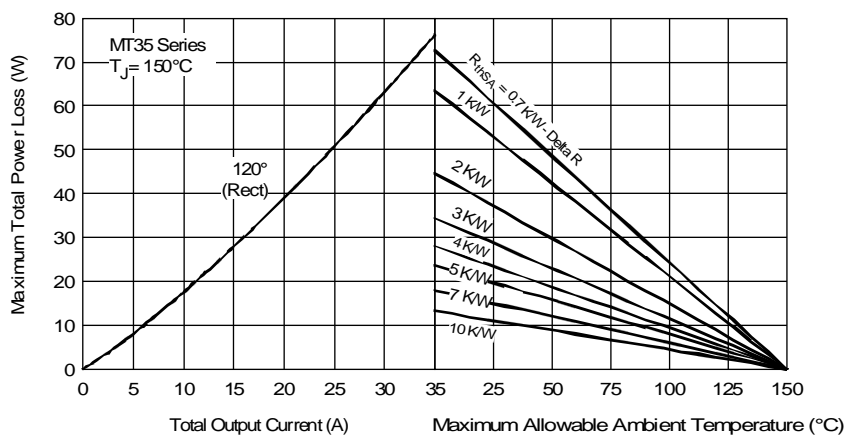


Fig. 8 - Total Power Loss Characteristics

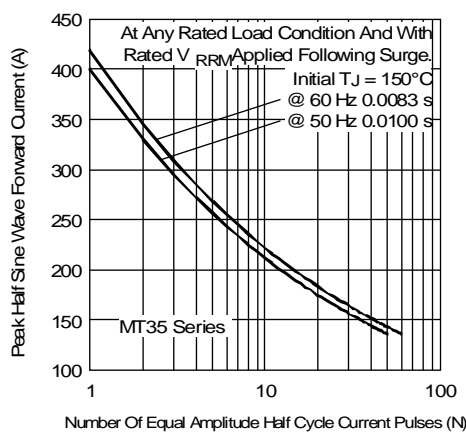


Fig. 9 - Maximum Non-Repetitive Surge Current

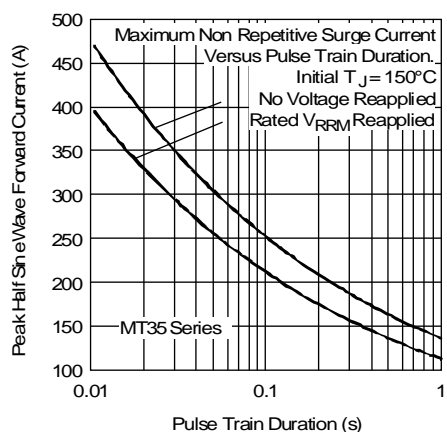


Fig. 10 - Maximum Non-Repetitive Surge Current

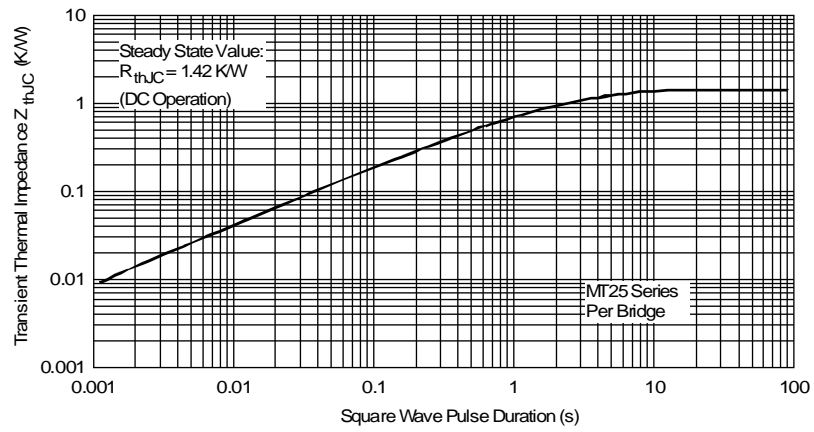


Fig. 11 - Thermal Impedance Z_{thJC} Characteristics

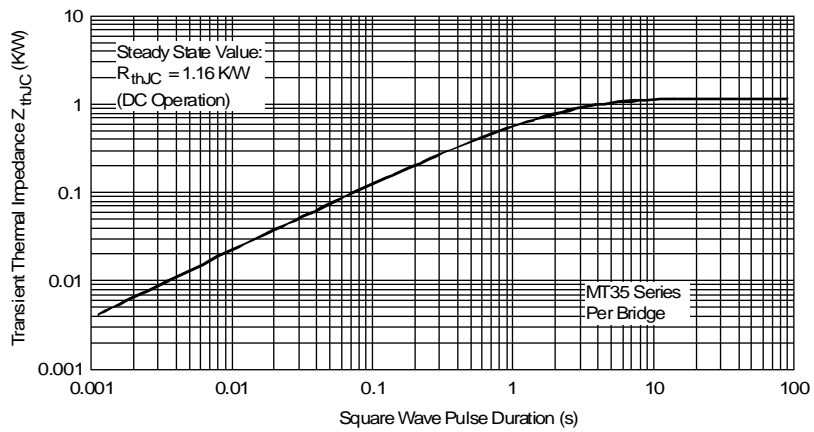


Fig. 12 - Thermal Impedance Z_{thJC} Characteristics

ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
MT2500	Square Bridge	50 Units/Box
MT2501	Square Bridge	50 Units/Box
MT2502	Square Bridge	50 Units/Box
MT2504	Square Bridge	50 Units/Box
MT2506	Square Bridge	50 Units/Box
MT2508	Square Bridge	50 Units/Box
MT2510	Square Bridge	50 Units/Box
MT2512	Square Bridge	50 Units/Box
MT2514	Square Bridge	50 Units/Box
MT2516	Square Bridge	50 Units/Box
MT3500	Square Bridge	50 Units/Box
MT3501	Square Bridge	50 Units/Box
MT3502	Square Bridge	50 Units/Box
MT3504	Square Bridge	50 Units/Box
MT3506	Square Bridge	50 Units/Box
MT3508	Square Bridge	50 Units/Box
MT3510	Square Bridge	50 Units/Box
MT3512	Square Bridge	50 Units/Box
MT3514	Square Bridge	50 Units/Box
MT3516	Square Bridge	50 Units/Box

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

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