



E502650

Features

- Glass Passivated Chip Junction
- High Surge Current Capability
- Lead Free Finish/RoHS Compliant (Note 1) ("P" Suffix Designates RoHS Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating

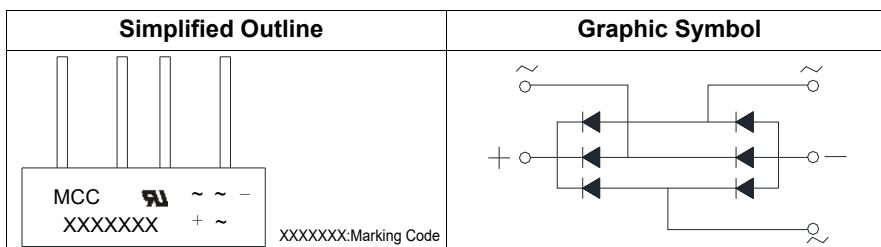
Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value		Unit
		MT2510W	MT2516W	
Peak Repetitive Reverse Voltage	V_{RRM}			
Working Peak Reverse Voltage	V_{RWM}	1000	1600	V
DC Blocking Voltage	V_R			
RMS Reverse Voltage	V_{RMS}	700	1120	V
Average Rectified Forward Current @ $T_C=100^\circ\text{C}$	$I_{F(AV)}$	25		A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	I_{FSM}	350		A
Non-Repetitive Peak Surge Current @ 1ms Square Wave		700		
I^2t Rating for Fusing @ $1\text{ms} \leq 8.3\text{ms}$	I^2t	508		A^2s
Dielectric strength @Terminals to Case, AC 1 Minute	V_{dis}	2.5		KV

Marking Code

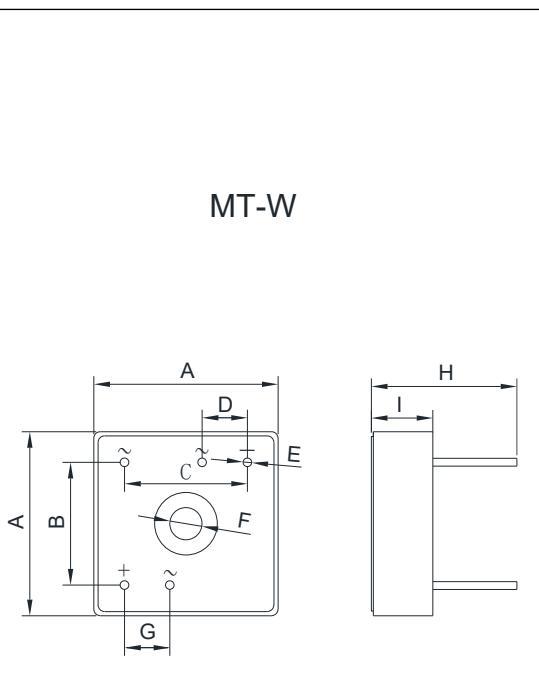
Part Number	Marking Code
MT2510W	MT2510W
MT2516W	MT2516W

Internal Structure



Note: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.

25 Amp Three Phase Bridge Rectifiers 1000V to 1600 Volts



DIM	DIMENSIONS				NOTE	
	INCHES		MM			
	MIN	MAX	MIN	MAX		
A	1.102	1.142	28.00	29.00		
B	0.728	0.768	18.50	19.50		
C	0.728	0.768	18.50	19.50		
D	0.256	0.295	6.50	7.50		
E	0.043	0.059	1.10	1.50		
F	0.177	0.217	4.50	5.50		
G	0.256	0.295	6.50	7.50		
H	0.866	0.945	22.00	24.00		
I	0.362	0.402	9.20	10.20		

Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
T _J	Operating Junction Temperature Range		-55		150	°C
T _{stg}	Storage Temperature Range		-55		150	°C
R _{th(J-C)}	Thermal Resistance from Junction to Case	Note 1		0.9		°C/W
R _{th(J-A)}	Thermal Resistance from Junction to Ambient			25		°C/W

Note: 1. Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

Mechanical Data

Recommend Mounting Torque: 5 kg•cm

Electrical Characteristics @ 25°C Unless Otherwise Specified(Per Diode)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V _F	I _F =12.5A;T _J =25°C			1.1	V
Reverse Current	I _R	at Rated V _R ;T _J =25°C at Rated V _R ;T _J =125°C			5 500	uA
Junction Capacitance	C _J	V _R =4V;f=1MHz;T _J =25°C		150		pF

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

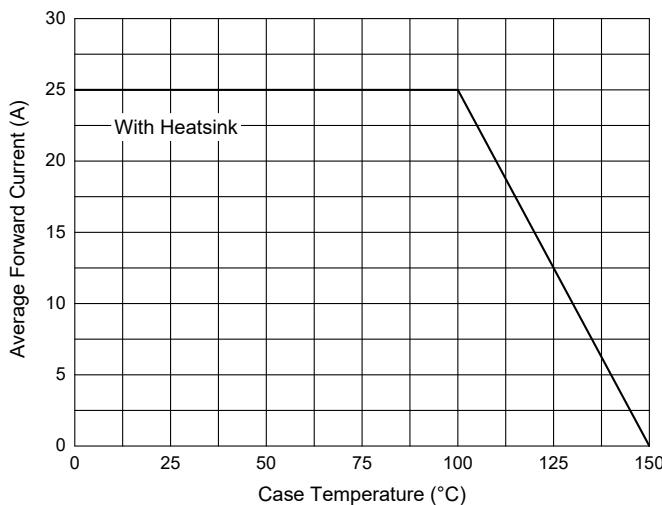


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current(Per Diode)

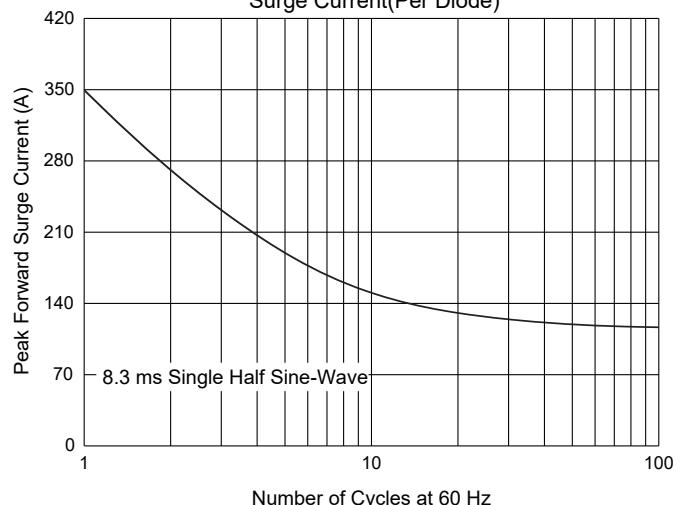


Fig. 3 - Typical Forward Characteristics (Per Diode)

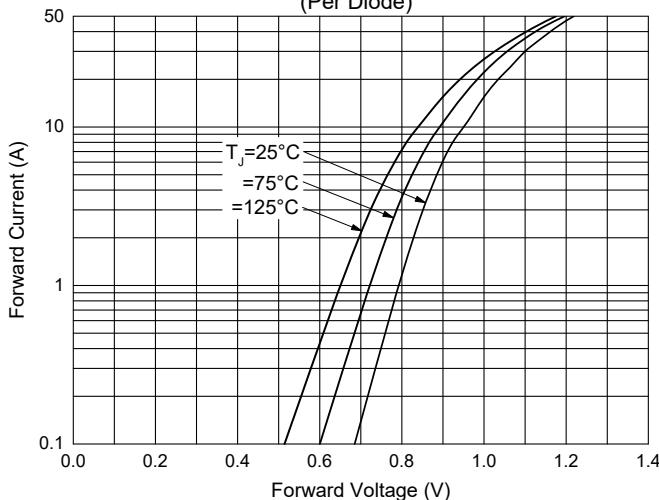


Fig. 4 - Typical Reverse Leakage Characteristics (Per Diode)

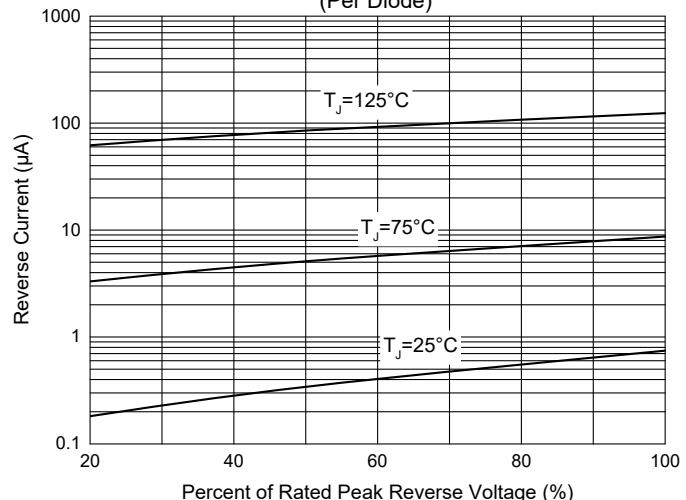
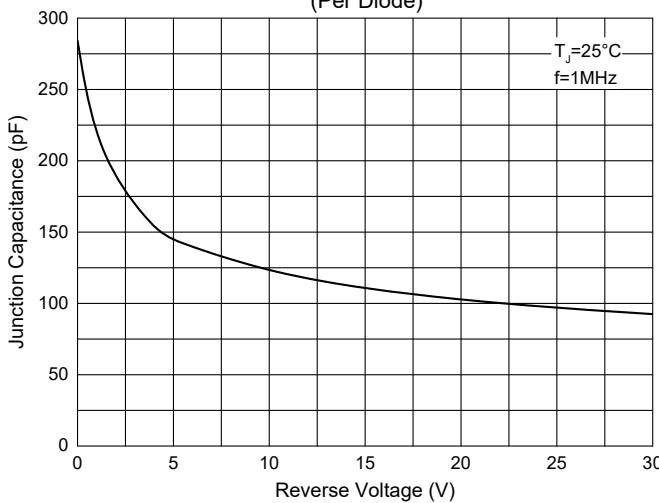


Fig. 5 - Typical Capacitance Characteristics (Per Diode)



Ordering Information

Device	Packing
Part Number-BP	Bulk:50pcs/Box,400pcs/Carton

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