	E502650

35 Amp Three Phase Bridge Rectifiers 400 to 1600 Volts

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
- General Purpose 3 Phases Bridge Rectifier Applications

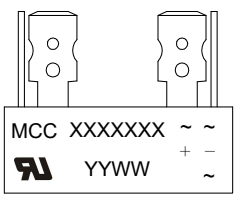
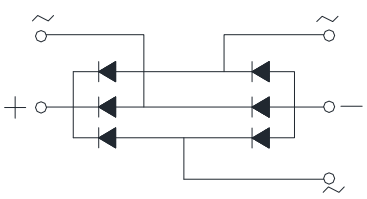
Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value							Unit
		MT3504A	MT3506A	MT3508A	MT3510A	MT3512A	MT3514A	MT3516A	
Peak Repetitive Reverse Voltage	V_{RRM}	400	600	800	1000	1200	1400	1600	V
Working Peak Reverse Voltage	V_{RWM}								
DC Blocking Voltage	V_R								
RMS Reverse Voltage	V_{RMS}	280	420	560	700	840	980	1120	V
Average Rectified Forward Current @ T_C=55°C	$I_{F(AV)}$	35							A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	I_{FSM}	400							A
I^2t Rating for Fusing @1ms≤t≤8.3ms	I^2t	660							A^2s
Dielectric strength @Terminals to Case, AC 1 Minute	V_{dis}	2.5							KV

Marking code

Part Number	Marking Code
MT3504A	MT3504A
MT3506A	MT3506A
MT3508A	MT3508A
MT3510A	MT3510A
MT3512A	MT3512A
MT3514A	MT3514A
MT3516A	MT3516A

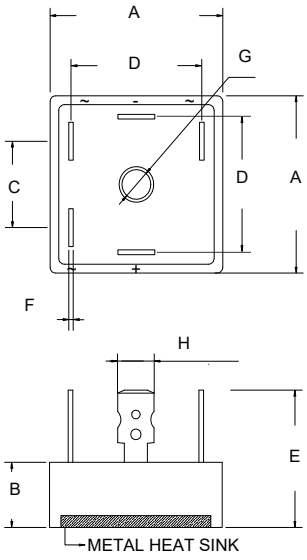
Internal Structure

Simplified Outline	Graphic Symbol
	

XXXXXXX:Marking Code
YYWW:Date Code

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

MT-35A



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	1.110	1.134	28.20	28.80	
B	0.354	0.394	9.00	10.00	
C	0.610	0.650	15.50	16.50	
D	0.917	0.957	23.30	24.30	
E	/	0.944	/	25.00	
F	0.029	0.033	0.75	0.85	
G	0.197	0.217	5.00	5.50	
H	0.244	0.251	6.20	6.40	

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
$Rth_{(J-C)}$	Thermal Resistance from Junction to Case	Note 1		0.85	1.3	°C/W

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

Mechanical Data

Mounting Torque*: 1 N•m(Recommend), 2 N•m(Maximum).

*Use M5 Screw and Washer.

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	I_F=17.5A;T_J=25°C			1.2	V
Reverse Current	I_R	at Rated V_R;T_J=25°C			10	μA
Junction Capacitance	C_J	V_R=4V;f=1MHz;T_J=25°C		155		pF

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

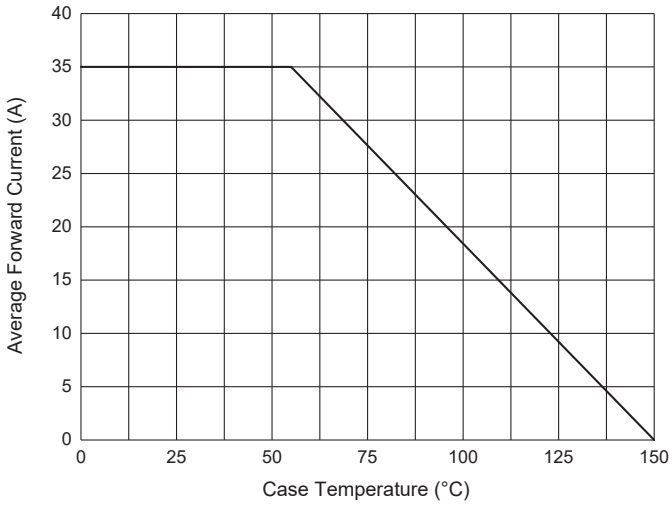


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current(Per Diode)

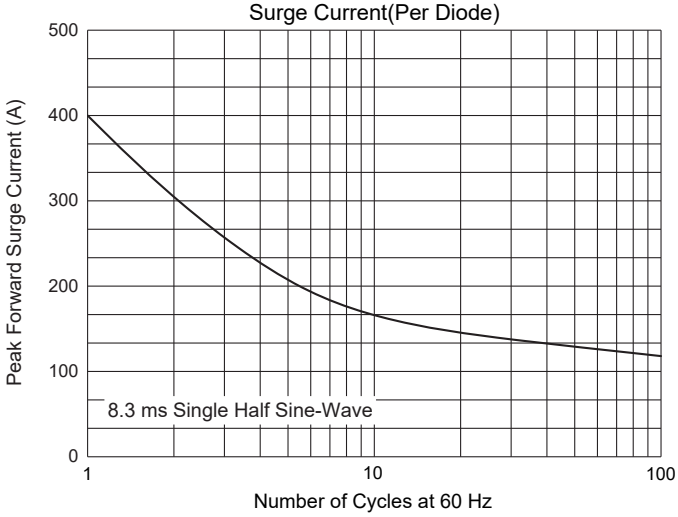


Fig. 3 - Typical Forward Characteristics (Per Diode)

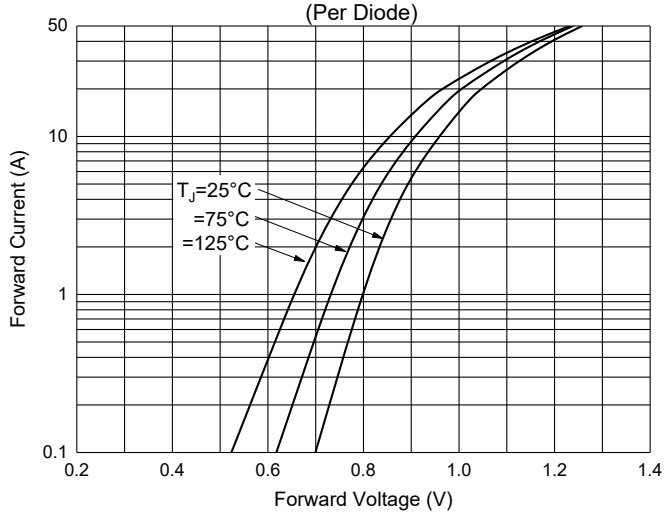


Fig. 4 - Typical Reverse Leakage Characteristics (Per Diode)

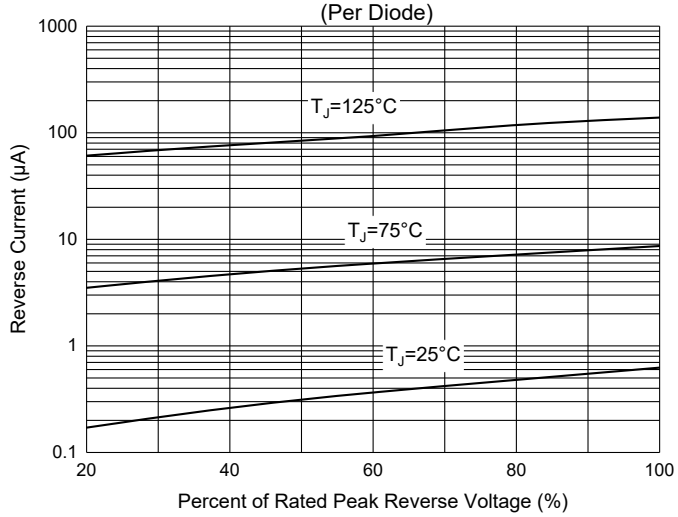
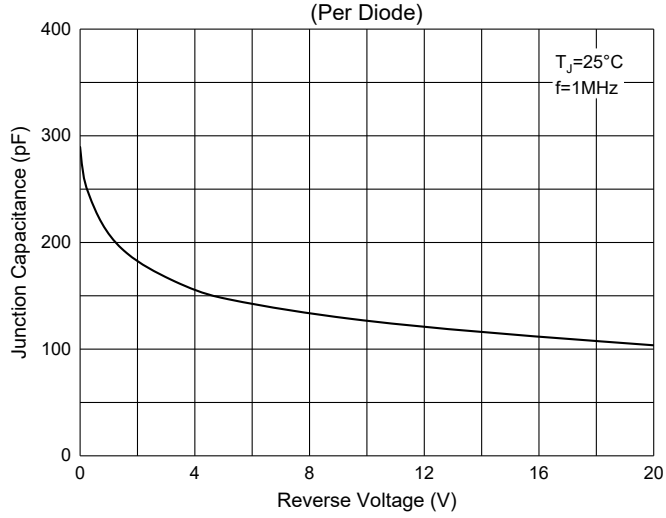


Fig. 5 - Typical Capacitance Characteristics (Per Diode)



Ordering Information

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