



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
- 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	$V_{RRM}$								V
Working Peak Reverse Voltage	$V_{RWM}$	400	600	800	1000	1200	1400	1600	
DC Blocking Voltage	$V_R$								
RMS Reverse Voltage	$V_{RMS}$	280	420	560	700	840	980	1120	V
Average Rectified Forward Current @ $T_C=55^\circ\text{C}$	$I_{F(AV)}$	35							A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	$I_{FSM}$	400							A
$I^2t$ Rating for Fusing @ $1\text{ms} \leq t \leq 8.3\text{ms}$	$I^2t$	660							A <sup>2</sup> s
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

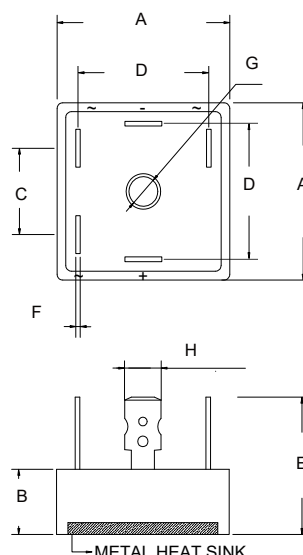
## Internal Structure

Simplified Outline	Graphic Symbol
<p>MCC XXXXXXXX ~ ~ YYWW + - XXXXXXX: Marking Code YYWW: Date Code</p>	

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

# 35 Amp Three Phase Bridge Rectifiers 400 to 1600 Volts

## 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
$R_{th(J-C)}$	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	$V_F$	$I_F=17.5A; T_J=25^{\circ}C$			1.2	V
Reverse Current	$I_R$	at Rated $V_R; T_J=25^{\circ}C$			10	$\mu A$
Junction Capacitance	$C_J$	$V_R=4V; f=1MHz; T_J=25^{\circ}C$		155		pF

## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

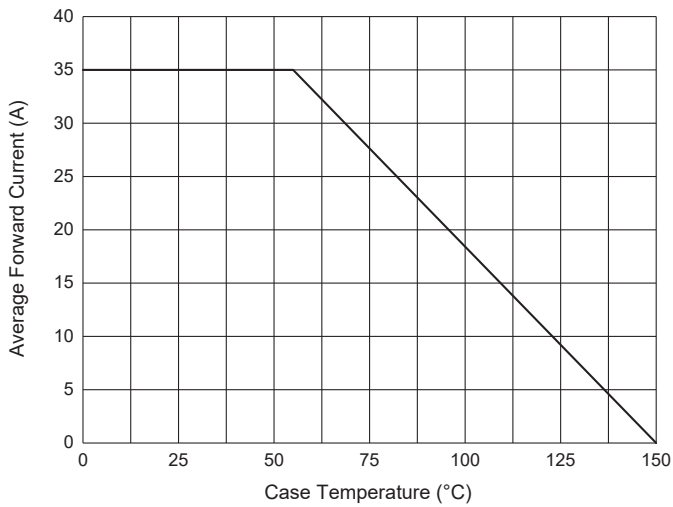


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current (Per Diode)

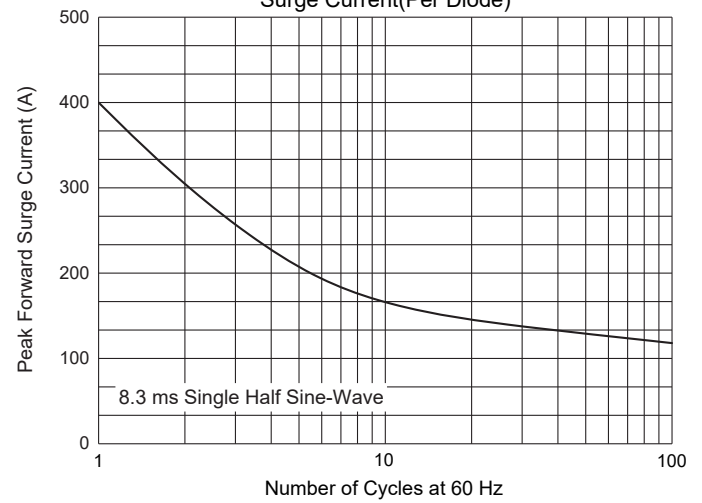


Fig. 3 - Typical Forward Characteristics (Per Diode)

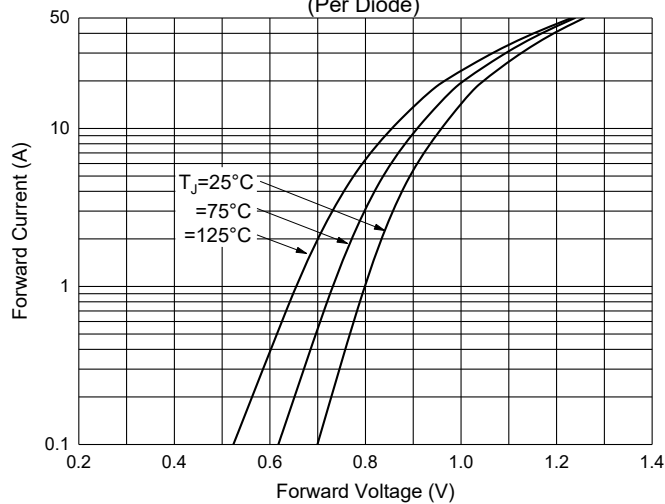


Fig. 4 - Typical Reverse Leakage Characteristics (Per Diode)

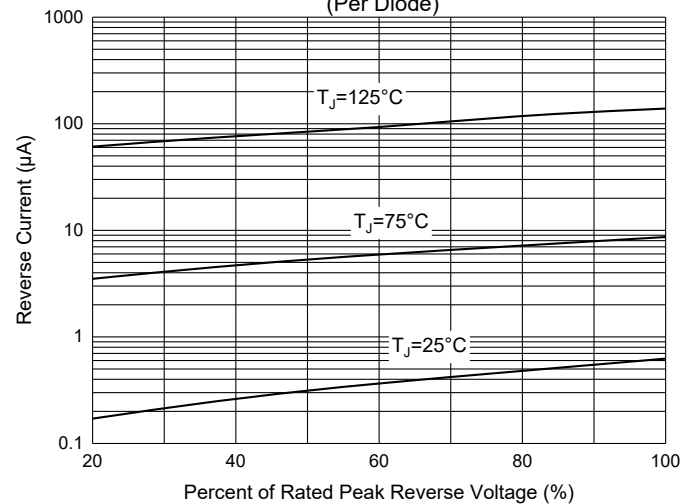
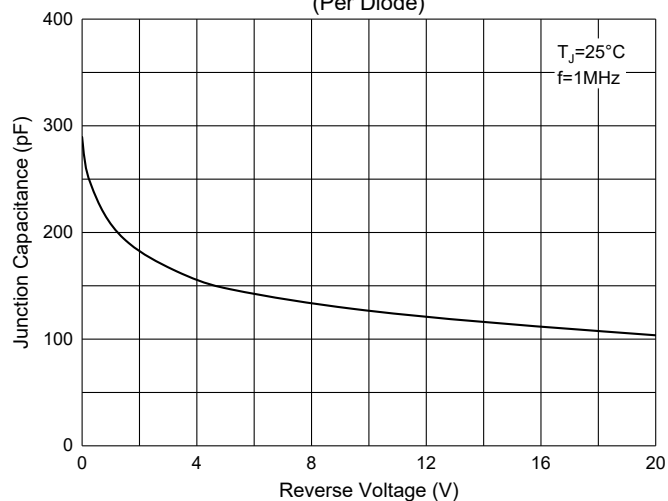


Fig. 5 - Typical Capacitance Characteristics (Per Diode)



## Ordering Information

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

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