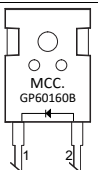
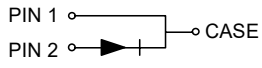


## Features

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- High Surge Forward Current Capability

## Maximum Ratings @ 25°C (Unless Otherwise Specified)

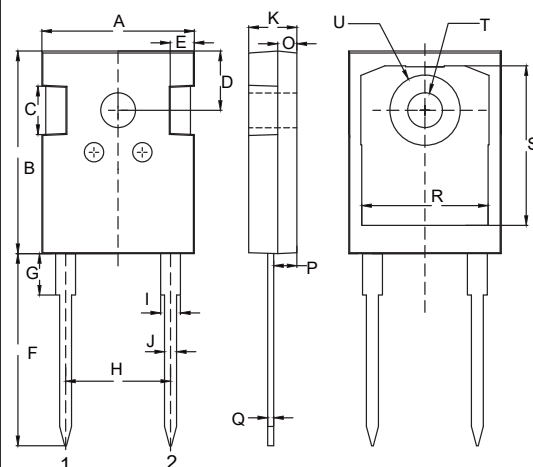
Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	1600	V
Working Peak Reverse Voltage	$V_{RWM}$		
DC Blocking Voltage	$V_R$		
RMS Reverse Voltage	$V_{RMS}$	1120	V
Average Rectified Forward Current	$I_{F(AV)}$	60	A
Non-Repetitive Peak Surge Current @8.3ms Half Sine Wave	$I_{FSM}$	950	A
Current Squared Time @ 1ms≤t≤8.3ms	$I^2t$	4525	A <sup>2</sup> s

Marking Diagram	Internal Structure
 <p>Marking Code: GP60160B</p>	

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

# 60 Amp General Purpose Rectifier Diodes 1600 Volts

## TO-247AD



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.602	0.642	15.30	16.30	
B	0.799	0.839	20.30	21.30	
C	0.189	0.205	4.80	5.20	
D	0.242		6.15		BSC.
E	0.091	0.106	2.30	2.70	
F	0.768	0.807	19.50	20.50	
G	----	0.189	----	4.80	
H	0.428		10.88		BSC.
I	0.075	0.087	1.91	2.21	
J	0.044	0.054	1.11	1.36	
K	0.189	0.205	4.80	5.20	
O	0.073	0.085	1.85	2.15	
P	0.087	0.103	2.21	2.61	
Q	0.020	0.030	0.51	0.75	
R	0.512	0.535	13.00	13.60	
S	0.640	0.663	16.25	16.85	
T	0.134	0.150	3.40	3.80	Φ
U	----	0.287	----	7.30	Φ

## 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			0.45		°C/W
$R_{th(J-A)}$	Thermal Resistance from Junction to Ambient			40		°C/W

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	$V_F$	$I_F=30A; T_J=25^{\circ}C$		1.00	1.10	V
		$I_F=60A; T_J=25^{\circ}C$		1.10	1.30	
Reverse Current	$I_R$	$V_R=1600V; T_J=25^{\circ}C$			5	$\mu A$
		$V_R=1600V; T_J=125^{\circ}C$			500	
		$V_R=1600V; T_J=150^{\circ}C$			1000	
Junction Capacitance	$C_J$	$V_R=4V; f=1MHz; T_J=25^{\circ}C$		220		pF

## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

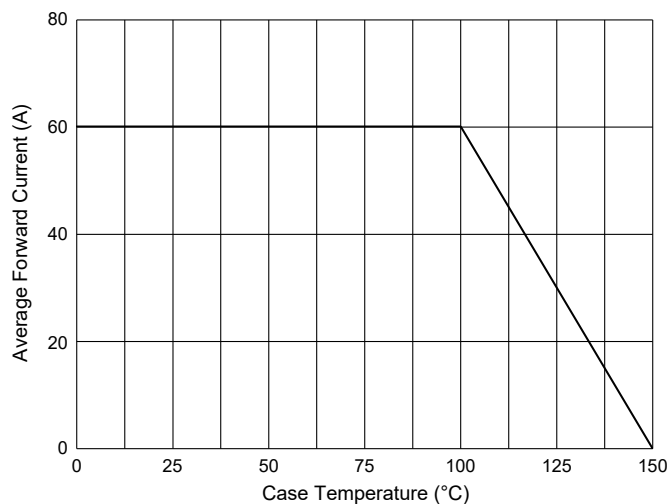


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

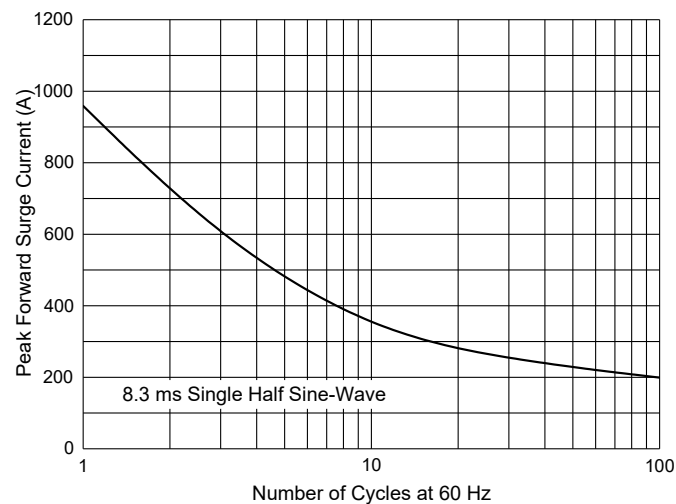


Fig. 3 - Typical Forward Characteristics

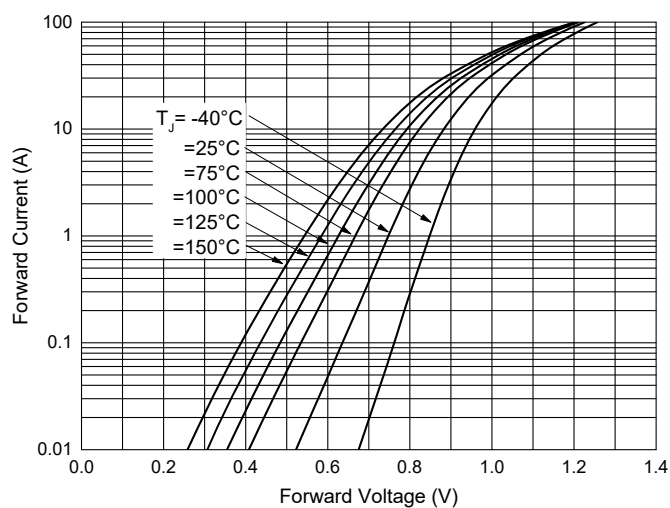


Fig. 4 - Typical Reverse Leakage Characteristics

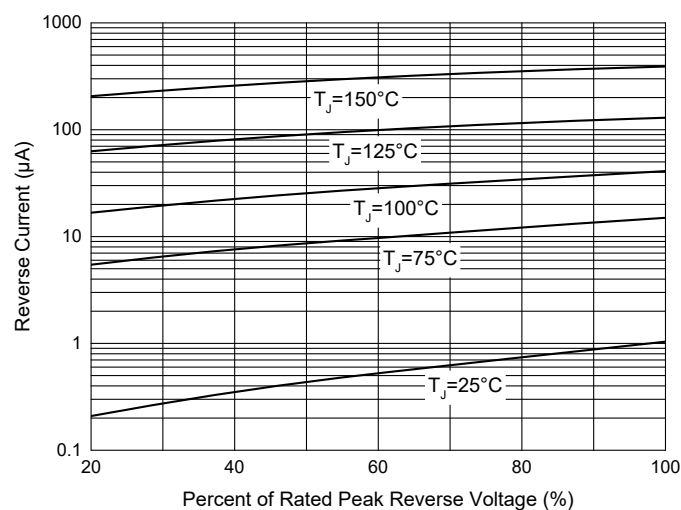
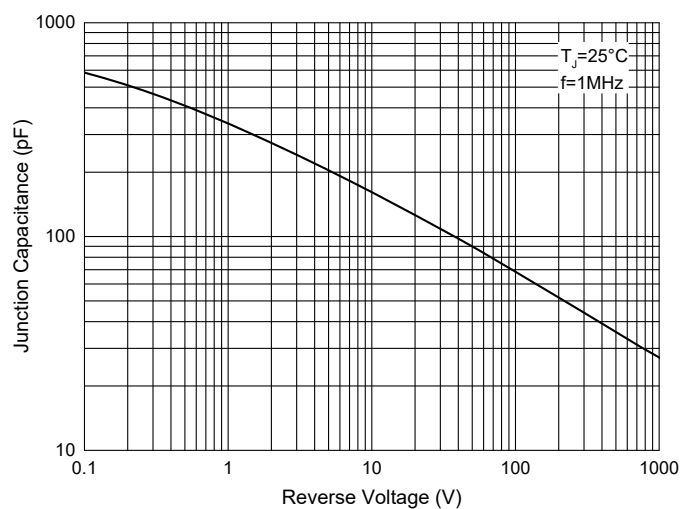


Fig. 5 - Typical Capacitance Characteristics



## Ordering Information

Device	Packing
GP60160B-BP	Bulk:30pcs/Tube,360pcs/Box,1.8Kpcs/Carton

Note : Adding "-HF" Suffix For Halogen Free, eg. GP60160B-BP-HF

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