

MBR4030PT - MBR4060PT

40A SCHOTTKY BARRIER RECTIFIER

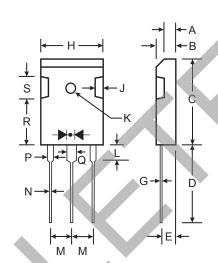
Features

- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- Low Power Loss, High Efficiency
- High Surge Capability
- High Current Capability and Low Forward Voltage Drop
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications
- Lead Free Finish, RoHS Compliant (Note 3)

Mechanical Data

Case: TO-3P

- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Finish Bright Tin. Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Ordering Information: See Last Page
- Marking: Type Number
- Weight: 5.6 grams (approximate)



TO-3P						
Dim	Min	Max				
Α	1.88	2.08				
В	4.68	5.36				
С	20.63	22.38				
D	18.5	21.5				
É	2.1	2.4				
G	0.51	0.76				
Н	15.38	16.25				
J	1.90	2.70				
K	2.9∅	3.65∅				
L	3.78	4.50				
M	5.2	5.7				
N	0.89	1.53				
Р	1.82	2.46				
Q	2.92	3.23				
R	11.70	12.84				
S		6.10				
All Dimensions in mm						

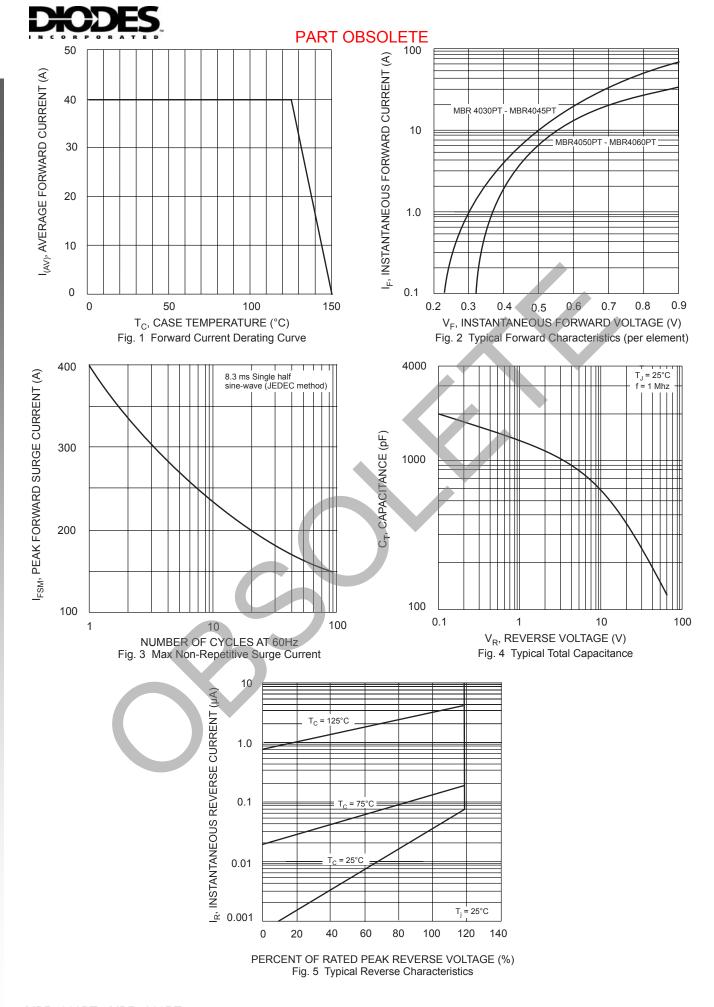
Maximum Ratings and Electrical Characteristics

@ $T_A = 25$ °C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	MBR 4030PT	MBR 4035PT	MBR 4040PT	MBR 4045PT	MBR 4050PT	MBR 4060PT	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	30	35	40	45	50	60	V
RMS Reverse Voltage	V _{R(RMS)}	21	24.5	28	31.5	35	42	V
Average Rectified Output Current @ T _C = 125°C (Note 1)		40					А	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)		400					А	
Forward Voltage Drop $@$ I _F = 20A, T _C = 25°C $@$ I _F = 20A, T _C = 125°C	V _{FM}			70 60			80 70	V
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	I _{RM}				.0 00			mA
Typical Total Capacitance (Note 2)	C _T			11	00			pF
Typical Thermal Resistance Junction to Case (Note 1)	R ₀ JC			1	.4			°C/W
Voltage Rate of Change (Rated V _R)		10,000					V/μs	
Operating and Storage Temperature Range		-65 to +150					°C	

- Notes: 1. Thermal resistance junction to case mounted on heatsink.
 - 2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
 - 3. RoHS revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see EU Directive Annex Notes 5 and 7.





Ordering Information (Note 4)

Device	Packaging	Shipping
MBR4030PT	TO-3P	30/Tube
MBR4035PT	TO-3P	30/Tube
MBR4040PT	TO-3P	30/Tube
MBR4045PT	TO-3P	30/Tube
MBR4050PT	TO-3P	30/Tube
MBR4060PT	TO-3P	30/Tube

Notes: 4. For packaging details, visit our website at http://www.diodes.com/datasheets/ap02008.pdf.

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