

MBR2535CT - MBR2560CT

30A 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 4)

Mechanical Data

Case: TO-220AB

Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0

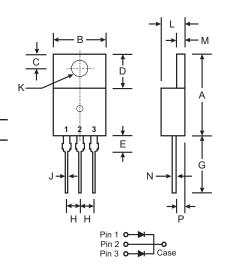
Moisture Sensitivity: Level 1 per J-STD-020C

Terminals: Finish - Bright Tin. Solderable per MIL-STD-202, Method 208

Polarity: As Marked on Body

Marking: Type Number

Weight: 2.24 grams (approx.)



TO-220AB						
Dim	Min	Max				
Α	14.48	15.75				
В	10.00	10.40				
С	2.54	3.43				
D	5.90	6.40				
E	2.80	80 3.93				
G	12.70	14.27				
Н	2.40	2.70				
J	0.69	0.93				
K	3.54	3.78				
L	4.07	4.82				
M	1.15	1.39				
N	0.30	0.50				
Р	2.04	2.79				
All Dimensions in mm						

Maximum Ratings and Electrical Characteristics @ TA = 25°C unless otherwise specified

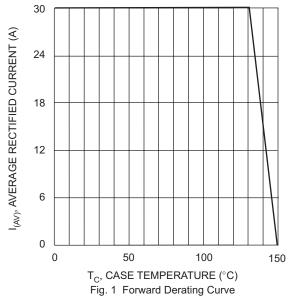
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

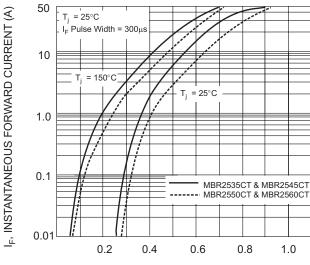
Characteristic	Symbol	MBR2535CT	MBR2545CT	MBR2550CT	MBR2560CT	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	35	45	50	60	V
RMS Reverse Voltage	V _{R(RMS)}	25	32	35	42	V
Average Rectified Output Current @ T _C = 130°C		30				Α
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)		150			А	
Peak Repetitive Reverse Surge Current (Note 3)	I _{RRM}	1	.0	0	.5	Α
Forward Voltage Drop @ I _F = 15.0A, T _C = 25 @ I _F = 15.0A, T _C = 125 @ I _F = 30.0A, T _C = 25 @ I _F = 30.0A, T _C = 125	C V _{FM}		 82 73		75 65 —	V
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		1	.2 ·0		.0	mA
Typical Total Capacitance (Note 2)	Ст	7!	50	50	00	pF
Typical Thermal Resistance Junction to Case (Note 1)		1.5			°C/W	
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. 2.0 μ s pulse width, f = 1.0KHz.
- 4. RoHS revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see EU Directive Annex Notes 5 and 7.







V_F, INSTANTANEOUS FORWARD VOLTAGE (V) Fig. 2 Typical Forward Characteristics

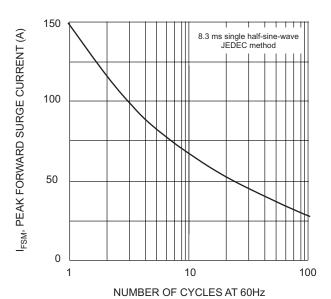


Fig. 3 Maximum Non-Repetitive Surge Current

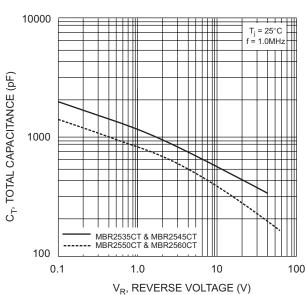


Fig. 4 Typical Total Capacitance (per element)

Ordering Information (Note 5)

Device	Packaging	Shipping
MBR25xxCT*	TO-220AB	50/Tube

^{*} xx = Device type, e.g. MBR2545CT

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