

MBR1530CT - MBR1560CT

15A SCHOTTKY BARRIER RECTIFIER

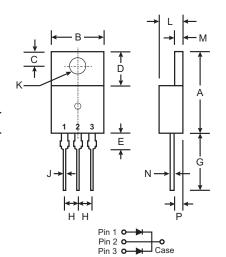
Features

- 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-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	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 @ T_A = 25°C unless otherwise specified

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

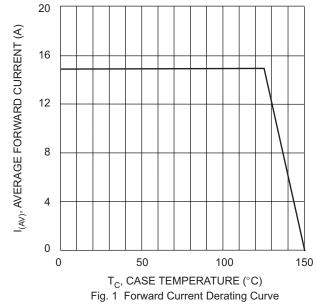
Character	istic		Symbol	MBR 1530CT	MBR 1535CT	MBR 1540CT	MBR 1545CT	MBR 1550CT	MBR 1560CT	Unit
Peak Repetitive Reverse Voltag Working Peak Reverse Voltage DC Blocking Voltage	e		V _{RRM} V _{RWM} V _R	30	35	40	45	50	60	٧
RMS Reverse Voltage			V _{R(RMS)}	21	24.5	28	31.5	35	42	V
Average Rectified Output Currer	nt @ ⁻	Γ _C = 125°C (Note 1)	Io			1	5			Α
Non-Repetitive Peak Forward S 8.3ms Single half sine-wave sur (JEDEC Method)		rated load	I _{FSM}			15	50			А
Forward Voltage Drop	@ I _F = 15A, 7 @ I _F = 7.5A, 7 @ I _F = 15A, 7	$\Gamma_{\rm C} = 125^{\circ}{\rm C}$	V _{FM}		0.	72 57 84		0.	80 65 90	V
Peak Reverse Current at Rated DC Blocking Voltage		$\Gamma_{\rm C} = 25^{\circ}{\rm C}$ $\Gamma_{\rm C} = 125^{\circ}{\rm C}$	I _{RM}		0	.1 5			.0	mA
Typical Total Capacitance (Note 2)		Ст	300				pF			
Typical Thermal Resistance Jun	ction to Case	(Note 1)	R _{θJc}			1	.7			°C/W
Voltage Rate of Change (Rated	V _R)		dV/dt		1000			10,000		V/μs
Operating and Storage Temperature Range		T _j , T _{STG}	-65 to +150			°C				

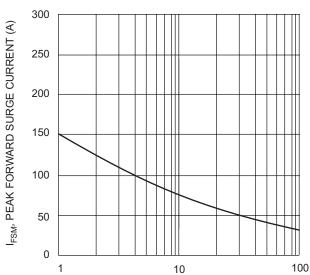
Notes:

- 1. Thermal resistance junction to case mounted on heatsink.a
- 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.

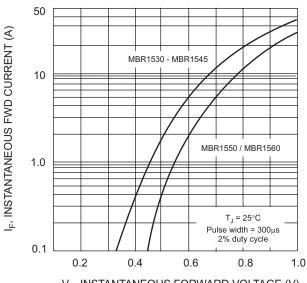
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NUMBER OF CYCLES AT 60Hz Fig. 3 Max Non-Repetitive Surge Current



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

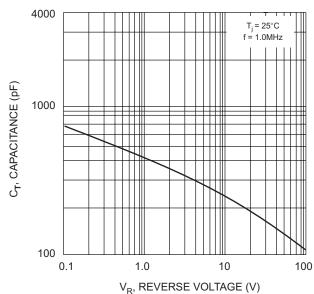
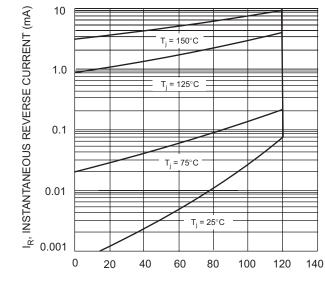


Fig. 4 Typical Total Capacitance (per element)



PERCENT OF RATED PEAK REVERSE VOLTAGE (%) Fig. 5 Typical Reverse Characteristics



Ordering Information (Note 4)

Device	Packaging	Shipping
MBR15xxCT*	TO-220AB	50/Tube

^{*} xx = Device type, e.g. MBR1545CT

Notes: 4. For Packaging Details, go to our website at http://www.diodes.com/datasheets/ap02007.pdf.