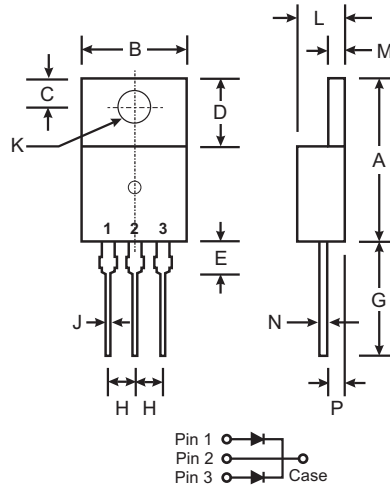


### Features

- 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.)



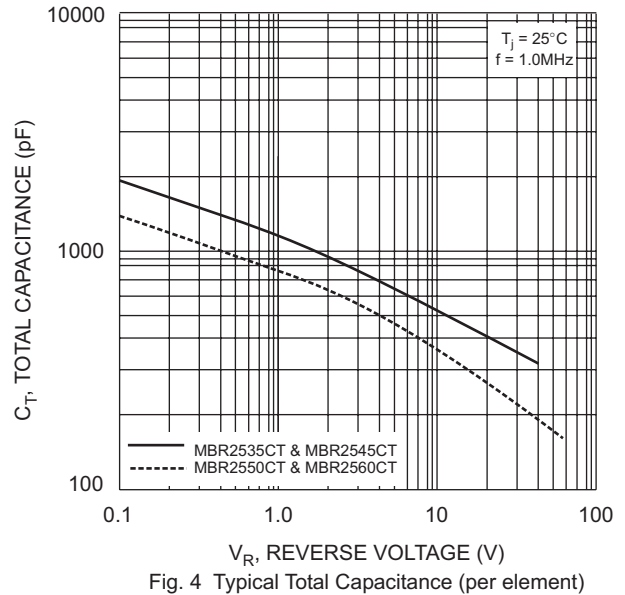
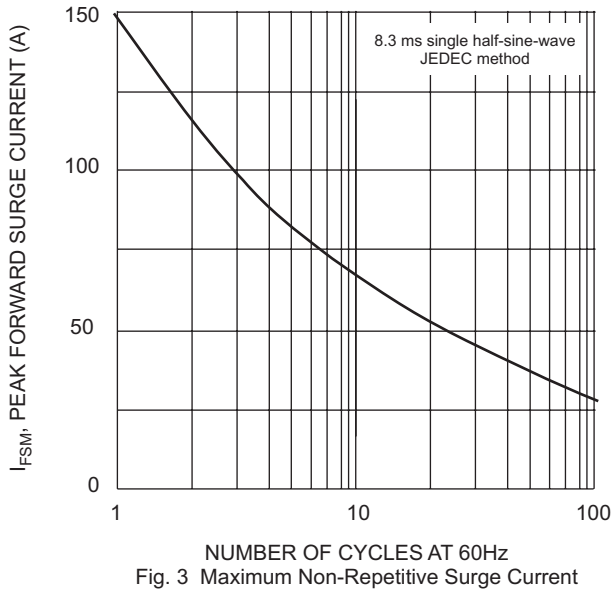
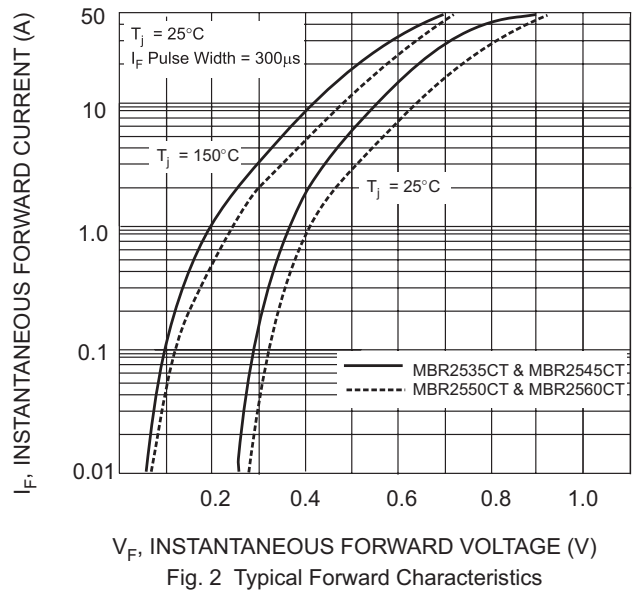
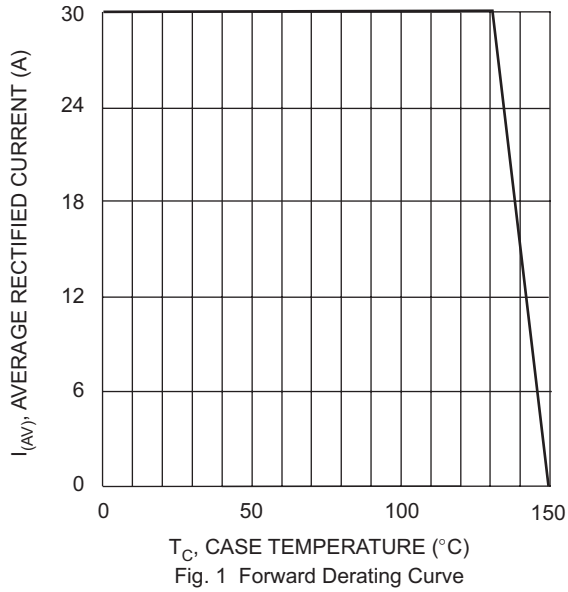
TO-220AB		
Dim	Min	Max
A	14.48	15.75
B	10.00	10.40
C	2.54	3.43
D	5.90	6.40
E	2.80	3.93
G	12.70	14.27
H	2.40	2.70
J	0.69	0.93
K	3.54	3.78
L	4.07	4.82
M	1.15	1.39
N	0.30	0.50
P	2.04	2.79
All Dimensions in mm		

### Maximum Ratings and Electrical Characteristics @ T<sub>A</sub> = 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	V <sub>RRM</sub>	35	45	50	60	V
Working Peak Reverse Voltage	V <sub>RWM</sub>					
DC Blocking Voltage	V <sub>R</sub>					
RMS Reverse Voltage	V <sub>R(RMS)</sub>	25	32	35	42	V
Average Rectified Output Current @ T <sub>C</sub> = 130°C	I <sub>O</sub>	30				A
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	150				A
Peak Repetitive Reverse Surge Current (Note 3)	I <sub>RRM</sub>	1.0		0.5		A
Forward Voltage Drop @ I <sub>F</sub> = 15.0A, T <sub>C</sub> = 25°C	V <sub>FM</sub>	—		0.75		V
@ I <sub>F</sub> = 15.0A, T <sub>C</sub> = 125°C		—		0.65		
@ I <sub>F</sub> = 30.0A, T <sub>C</sub> = 25°C		0.82		—		
@ I <sub>F</sub> = 30.0A, T <sub>C</sub> = 125°C		0.73		—		
Peak Reverse Current at Rated DC Blocking Voltage @ T <sub>C</sub> = 25°C	I <sub>RM</sub>	0.2		1.0		mA
@ T <sub>C</sub> = 125°C		40		50		
Typical Total Capacitance (Note 2)	C <sub>T</sub>	750		500		pF
Typical Thermal Resistance Junction to Case (Note 1)	R <sub>θJC</sub>	1.5				°C/W
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-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. 2.0μs 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.



**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>.