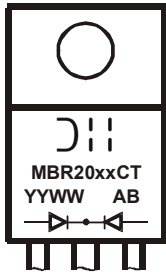


## Marking Information



MBR20xxCT = Product Type Marking Code  
 AB = Foundry and Assembly Code  
 YYWW = Date Code Marking  
 YY = Last two digits of year (ex: 13 = 2013)  
 WW = Week (01 - 53)



MBRF20xxCT = Product Type Marking Code  
 AB = Foundry and Assembly Code  
 YYWW = Date Code Marking  
 YY = Last two digits of year (ex: 13 = 2013)  
 WW = Week (01 - 53)

## Maximum Ratings (Per Leg) (@T<sub>A</sub> = +25°C, unless otherwise specified.)

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

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>		
Working Peak Reverse Voltage	V <sub>RWM</sub>		V
DC Blocking Voltage	V <sub>RM</sub>	45 60	
MBR2045CT / MBRF2045CT			
MBR2060CT / MBRF2060CT			
Average Rectified Output Current (Per Leg) (Total)	I <sub>O</sub>	10 20	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I <sub>FSM</sub>	180	A

## Thermal Characteristics (Per Leg)

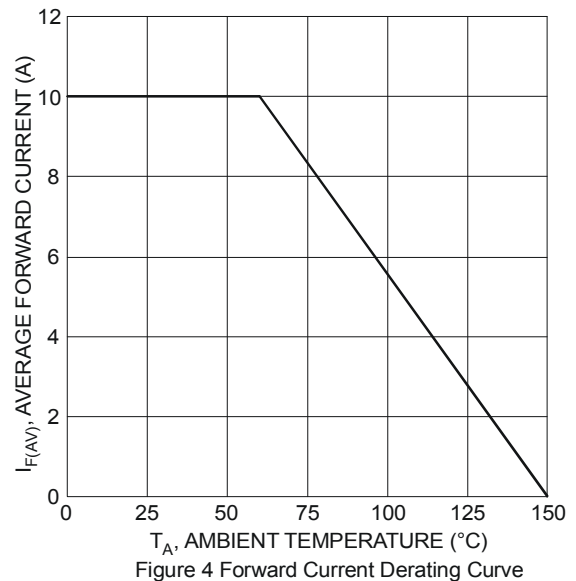
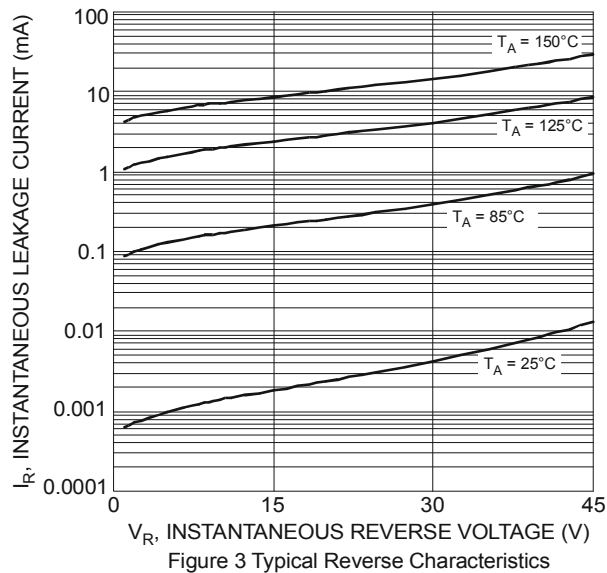
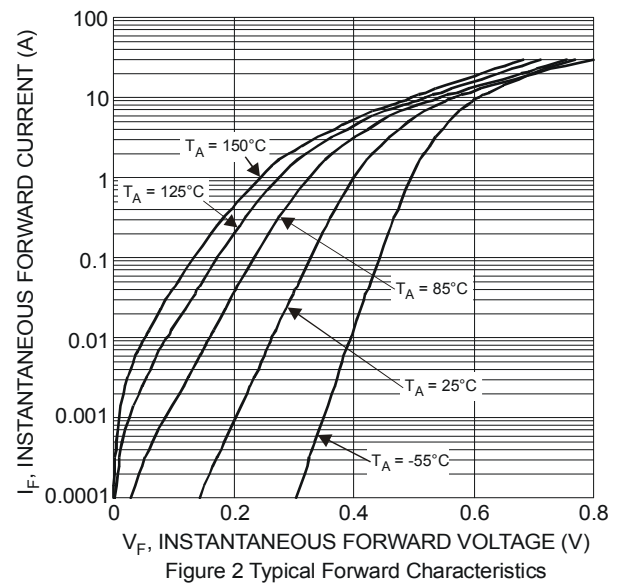
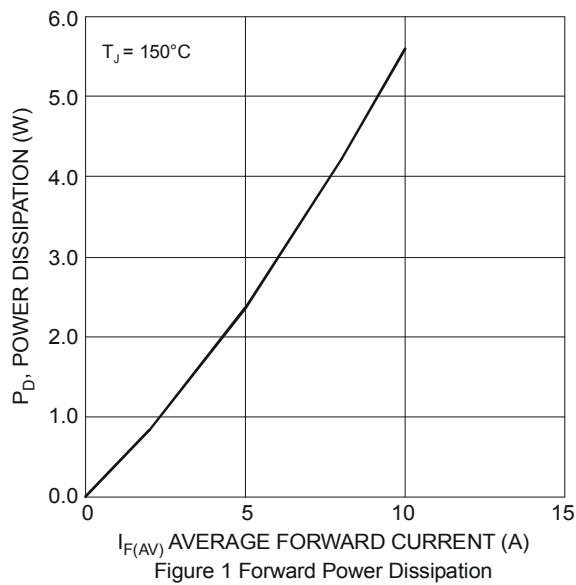
Characteristic	Symbol	Value	Unit
Typical Thermal Resistance, Junction to Case (Note 5)	R <sub>θJC</sub>	2	°C/W
Package = TO-220AB		4	
Package = ITO-220AB			
Typical Thermal Resistance, Junction to Ambient (Note 5)	R <sub>θJA</sub>	15	°C/W
Package = TO-220AB		25	
Package = ITO-220AB			
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°C

## Electrical Characteristics (Per Leg) (@T<sub>A</sub> = +25°C, unless otherwise specified.)

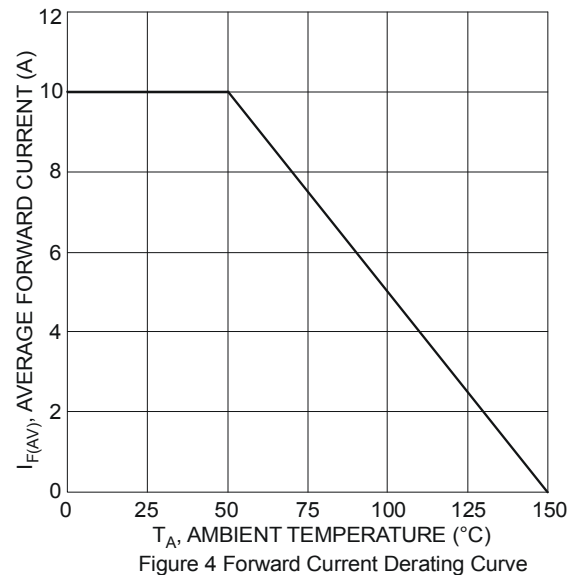
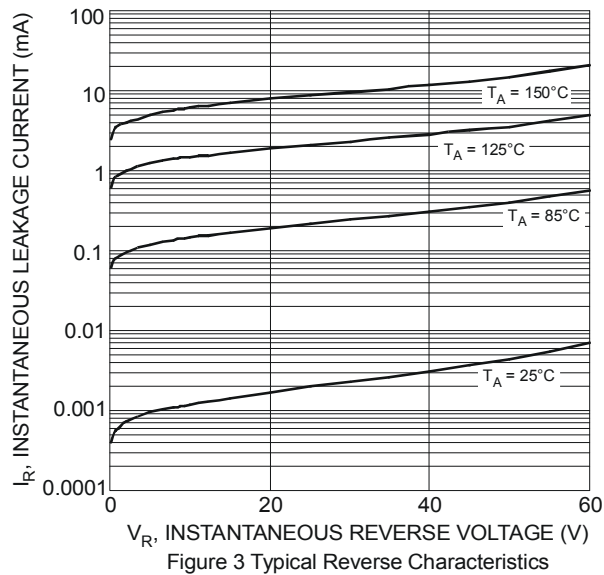
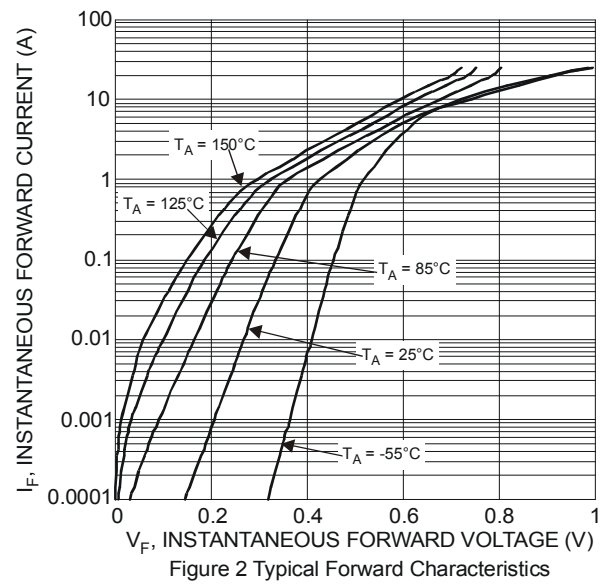
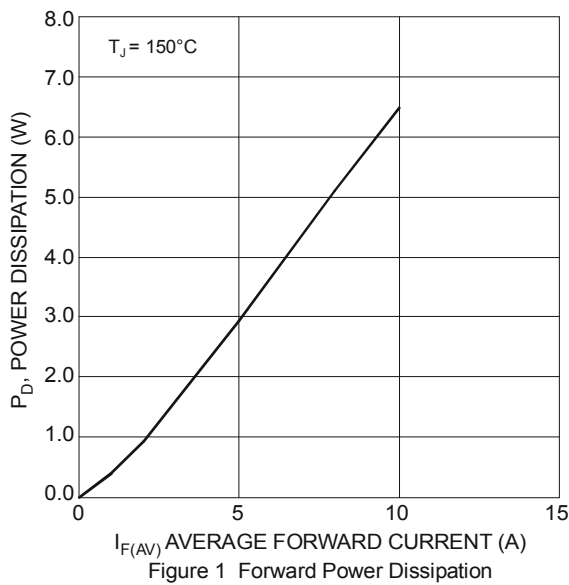
Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
MBR2045CT / MBRF2045CT						
Forward Voltage Drop	V <sub>F</sub>	—	0.58	0.64	V	I <sub>F</sub> = 10A, T <sub>J</sub> = +25°C
		—	—	0.57		I <sub>F</sub> = 10A, T <sub>J</sub> = +125°C
MBR2060CT / MBRF2060CT						
Forward Voltage Drop	V <sub>F</sub>	—	0.75	0.81	V	I <sub>F</sub> = 10A, T <sub>J</sub> = +25°C
		—	—	0.69		I <sub>F</sub> = 10A, T <sub>J</sub> = +125°C
Leakage Current (Note 6) at Rated DC Blocking Voltage	I <sub>R</sub>	—	—	0.1 15	mA	V <sub>R</sub> = Rated V, T <sub>J</sub> = +25°C V <sub>R</sub> = Rated V, T <sub>J</sub> = +125°C

Notes: 5. Device mounted on Device with FR4 add heat sink (45mm x 20mm x 12mm), with minimum recommended pad layout per <http://www.diodes.com>  
 6. Short duration pulse test used to minimize self-heating effect

**MBR2045CT / MBRF2045CT**

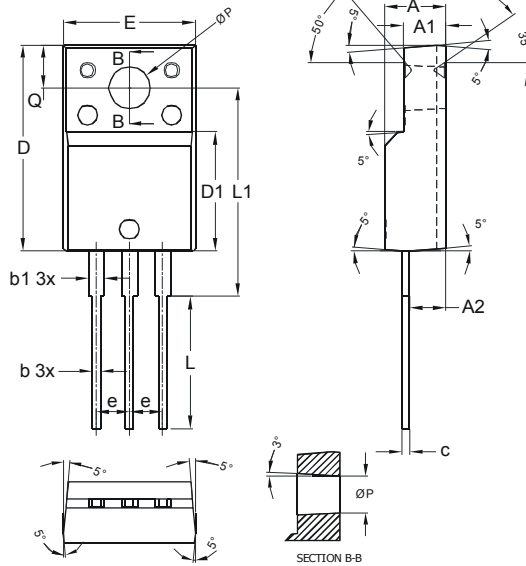


**MBR2060CT / MBRF2060CT**

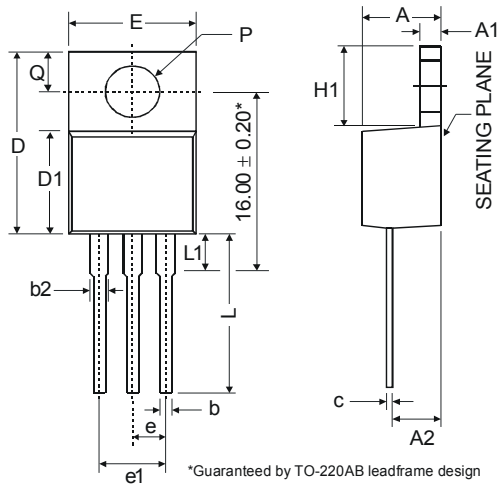


## Package Outline Dimensions

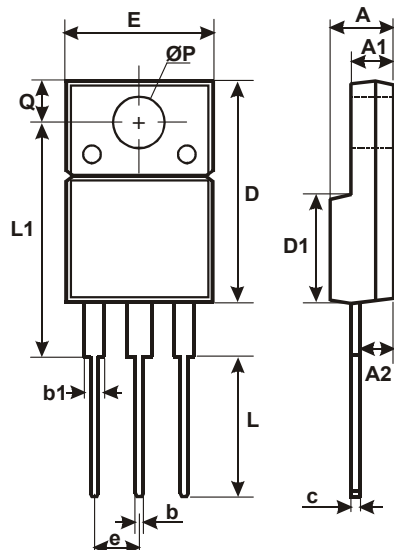
Please see AP02002 at <http://www.diodes.com/datasheets/ap02002.pdf> for latest version.



ITO-220AB			
Dim	Min	Typ	Max
A	4.50	4.70	4.90
A1	3.04	3.24	3.44
A2	2.56	2.76	2.96
b	0.50	0.60	0.75
b1	1.10	1.20	1.35
c	0.50	0.60	0.70
D	15.67	15.87	16.07
D1	8.99	9.19	9.39
e	2.54		
E	9.91	10.11	10.31
L	9.45	9.75	10.05
L1	15.80	16.00	16.20
P	2.98	3.18	3.38
Q	3.10	3.30	3.50
All Dimensions in mm			

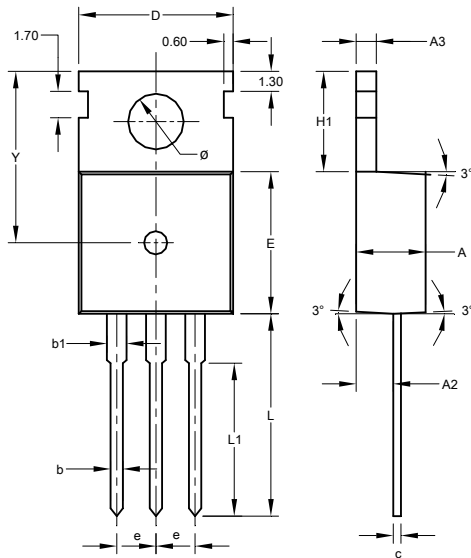


TO220AB			
Dim	Min	Typ	Max
A	3.56	-	4.82
A1	0.51	-	1.39
A2	2.04	-	2.92
b	0.39	0.81	1.01
b2	1.15	1.24	1.77
c	0.356	-	0.61
D	14.22	-	16.51
D1	8.39	-	9.01
e	2.54		
e1	5.08		
E	9.66	-	10.66
H1	5.85	-	6.85
L	12.70	-	14.73
L1	-	-	6.35
P	3.54	-	4.08
Q	2.54	-	3.42
All Dimensions in mm			

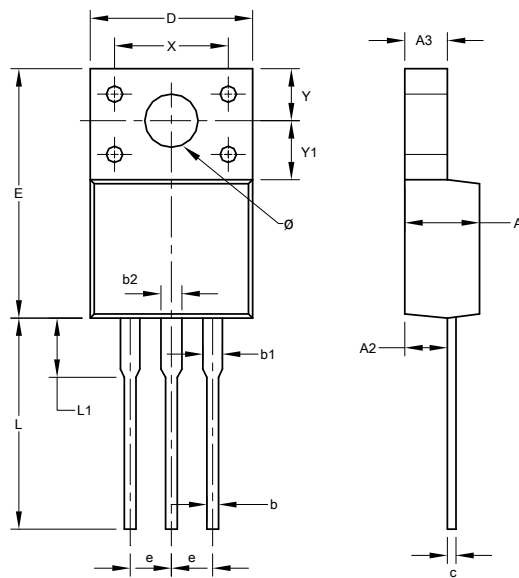


ITO-220AB Alternate		
Dim	Min	Max
A	4.36	4.77
A1	2.54	3.1
A2	2.54	2.8
b	0.55	0.75
b1	1.2	1.5
c	0.38	0.68
D	14.5	15.5
D1	8.38	8.89
E	9.72	10.27
e	2.41	2.67
L	9.87	10.67
L1	15.8	17
ØP	3.08	3.39
Q	2.6	3.0
All Dimensions in mm		

**Package Outline Dimensions (cont.)**



TO220AB Type C			
Dim	Min	Max	Typ
A	-	-	4.50
A2	-	-	2.40
A3	-	-	1.30
b	0.70	0.90	-
b1	-	-	1.27
c	0.40	0.60	-
D	9.80	10.20	-
E	9.00	9.40	-
e	-	-	2.54
H1	6.30	6.70	-
L	12.60	13.60	-
L1	9.60	10.60	-
Y	-	-	11.10
Ø	3.56	3.64	-
All Dimensions in mm			



ITO220AB (TO220F-3)			
Dim	Min	Max	Typ
A	4.30	4.90	-
A2	2.52	2.92	-
A3	2.35	2.90	-
b	0.55	0.90	-
b1	1.00	1.40	-
b2	1.10	1.50	-
c	0.45	0.60	-
D	9.70	10.30	-
E	14.70	16.00	-
e	-	-	2.54
L	12.50	13.50	-
L1	2.79	4.50	-
X	6.90	7.10	-
Y	3.00	3.40	-
Y1	3.37	3.90	-
Ø	3.00	3.55	-
All Dimensions in mm			

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