

Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

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

Characteristic	Symbol	MBR 1635	MBR 1640	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	35	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	24.5	28	V
Average Rectified Output Current (Note 4) @ T _C = +125°C	I _O	16		A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	150		A

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Typical Thermal Resistance Junction to Case (Note 4)	R _{θJC}	1.5	°C/W
Voltage Rate of Change (Rated V _R)	dV/dt	1,000	V/μs
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150	°C

Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Value	Unit
Forward Voltage Drop @ I _F = 16A, T _C = +25°C @ I _F = 16A, T _C = +125°C	V _{FM}	0.63 0.57	V
Peak Reverse Current at Rated DC Blocking Voltage @ T _C = +25°C @ T _C = +125°C	I _{RM}	0.2 40	mA
Typical Total Capacitance (Note 5)	C _T	450	pF

Notes: 4. Thermal resistance junction to case mounted on heatsink.
 5. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

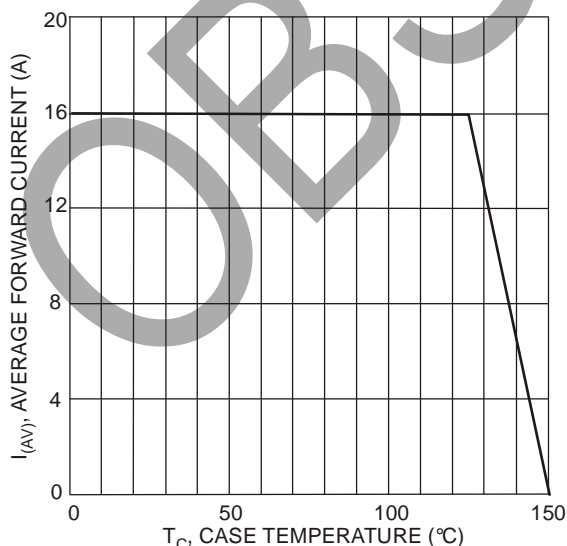


Fig. 1 Forward Current Derating Curve

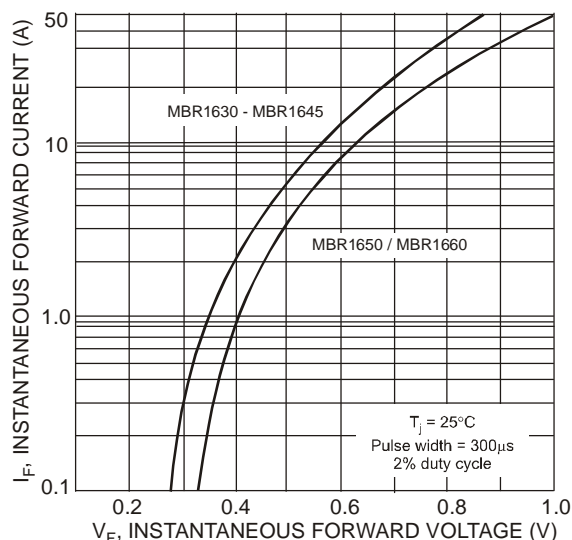


Fig. 2 Typical Forward Voltage Characteristics

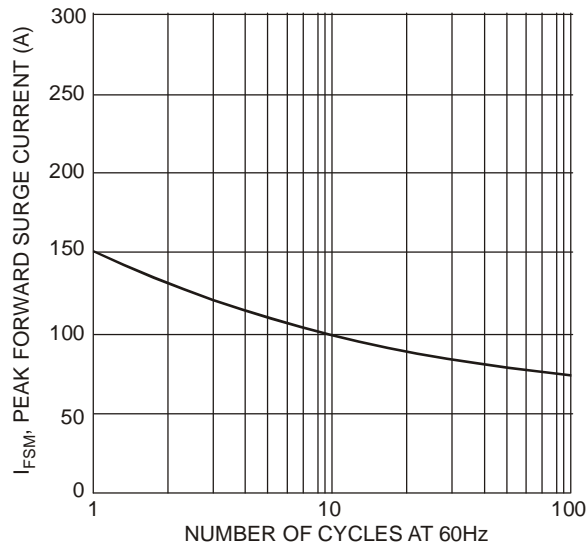


Fig. 3 Max Non-Repetitive Surge Current

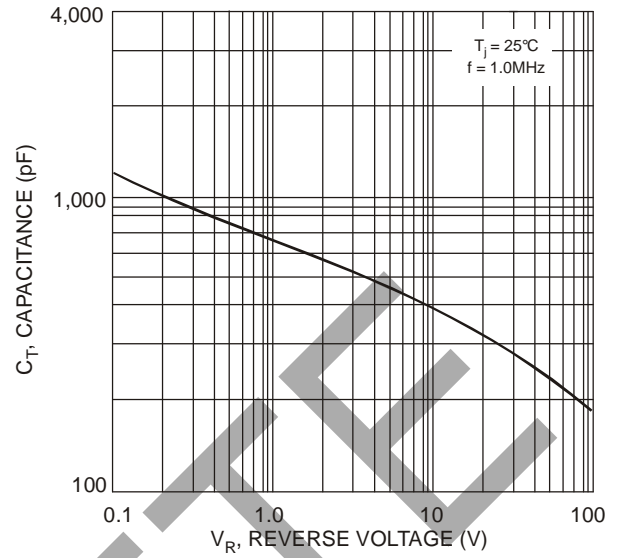


Fig. 4 Typical Total Capacitance

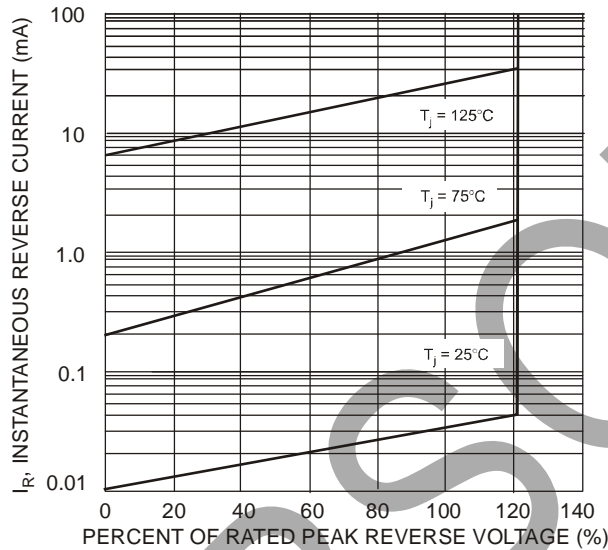
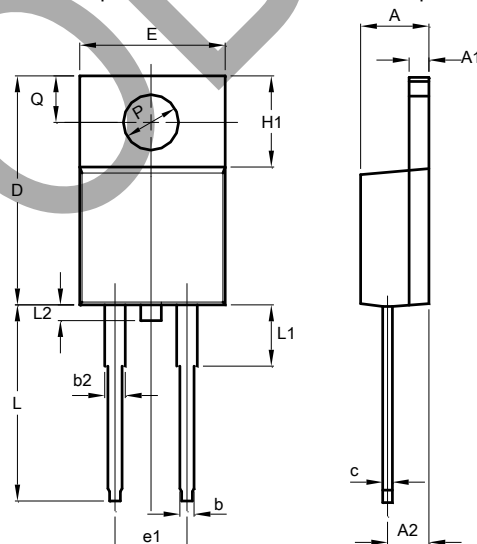


Fig. 5 Typical Reverse Characteristics

Package Outline Dimensions

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



TO220AC			
Dim	Min	Typ	Max
A	4.40	-	4.82
A1	1.1	-	1.40
A2	2.05	-	2.92
b	0.72	-	1.00
b2	1.16	-	1.45
c	0.36	-	0.68
D	14.70	-	15.87
e1	5.08		
E	9.80	-	10.26
H1	5.80	-	6.40
L	12.70	-	13.96
L1	3.56	-	4.50
P	3.70	-	3.90
Q	2.54	-	3.30
All Dimensions in mm			

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