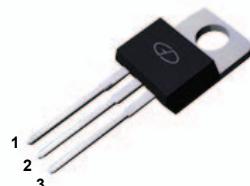
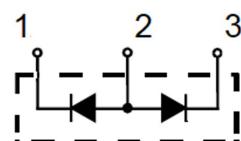


## Features

- Glass passivated chip
- Superfast switching time for high efficiency
- Low forward voltage drop and high current capability
- Low reverse leakage current
- High surge capacity



TO-220-AB



Schematic Diagram

## Mechanical Data

- Case: TO-220AB molded plastic
- Polarity: as marked on the body
- Weight: 0.08 ounces, 2.0 grams

## Absolute Maximum Ratings ( $T_c=25^\circ\text{C}$ unless otherwise specified)

Parameters	Symbol	Max Ratings	Unit
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	200	V
Working Peak Reverse Voltage	$V_{RMS}$	200	V
Maximum DC Blocking Voltage	$V_{DC}$	200	V
Maximum Average Forward Rectified Current @ $T_c=100^\circ\text{C}$	$I_{(AV)}$	16	A
Peak Forward Surge Current 8.3ms Single Half-Sine-Wave Superimposed on Rated Load (JEDEC METHOD)	$I_{FSM}$	175	A
Maximum Forward Voltage at 8.0A DC	$V_F$	1	V
Maximum DC Reverse Current At Rated DC Blocking Voltage @ $T_j=25^\circ\text{C}$	$I_R$	5	uA
Maximum DC Reverse Current At Rated DC Blocking Voltage @ $T_j=100^\circ\text{C}$		500	uA
Typical Junction Capacitance Per Element <sup>1</sup>	$C_J$	90	pF
Maximum Reverse Recovery Time <sup>2</sup>	$T_{RR}$	35	ns
Typical Thermal Resistance <sup>3</sup>	$R_{\theta JC}$	2	°C/W
Operating Junction Temperature Range	$T_J$	-55 to +150	°C
Storage Temperature Range	$T_{STG}$	-55 to +150	°C

### Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Reverse recovery test conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{RR}=0.25\text{A}$ .
3. Thermal resistance junction to case.

## Typical Electrical and Thermal Characteristic Curves

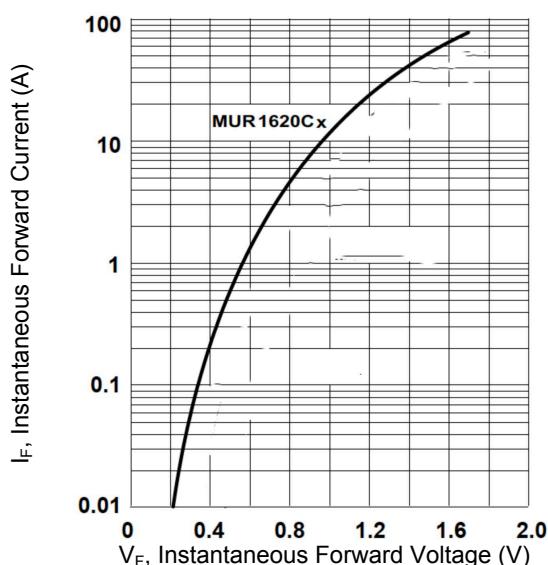


Figure 1. Typical Forward Characteristics

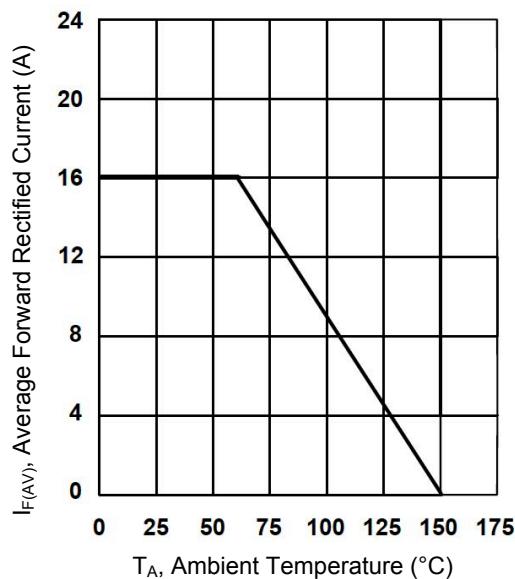


Figure 2. Forward Current Derating Curve

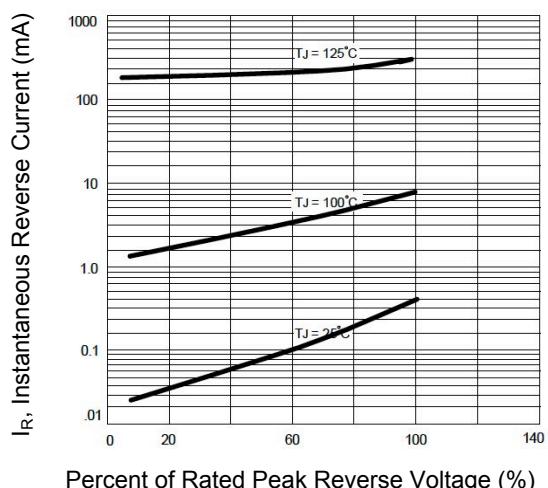


Figure 3. Typical Reverse Characteristics

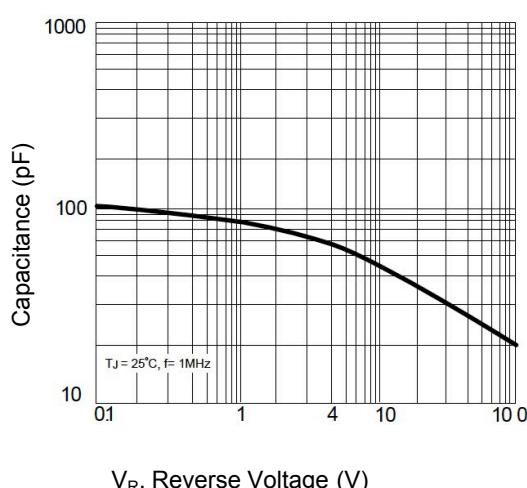
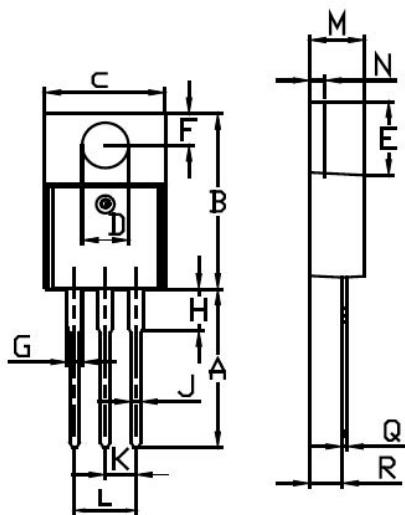


Figure 4. Typical Junction Capacitance

## Package Outline Dimensions (TO-220AB)



Symbol	Dimensions in Millimeters		Dimensions in Inches	
	Min	Max	Min	Max
A	12.700	13.970	0.500	0.550
B	14.730	16.000	0.580	0.630
C	9.910	10.660	0.390	0.420
D	3.540	4.080	0.139	0.161
E	5.850	6.850	0.230	0.270
F	2.540	3.180	0.100	0.125
G	1.150	1.650	0.045	0.065
H	2.790	5.840	0.110	0.230
J	0.640	1.010	0.025	0.040
K	2.540 BSC		0.100 BSC	
M	4.320	4.820	0.170	0.190
N	1.140	1.390	0.045	0.055
Q	0.350	0.560	0.014	0.022
R	2.290	2.790	0.090	0.110
L	4.830	5.330	0.190	0.210