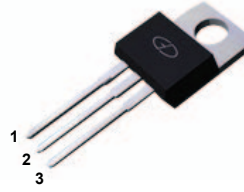
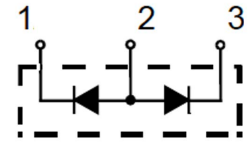


Features

- 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	μA
Maximum DC Reverse Current At Rated DC Blocking Voltage @ $T_J=100^\circ\text{C}$		500	μA
Typical Junction Capacitance Per Element ¹	C_J	90	pF
Maximum Reverse Recovery Time ²	T_{RR}	35	ns
Typical Thermal Resistance ³	$R_{\theta JC}$	2	$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	T_J	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ\text{C}$

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

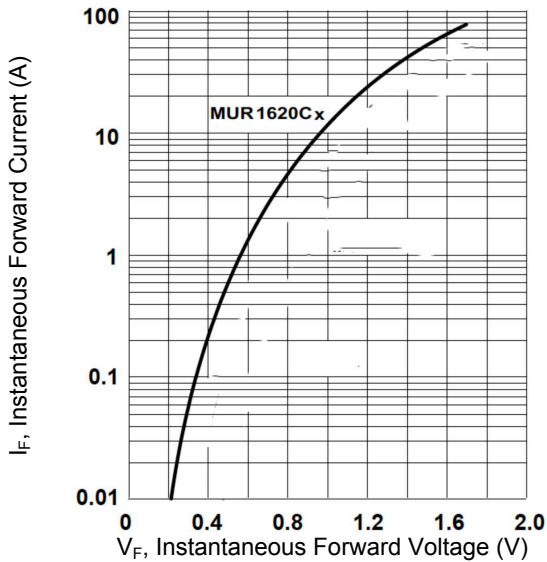


Figure 1. Typical Forward Characteristics

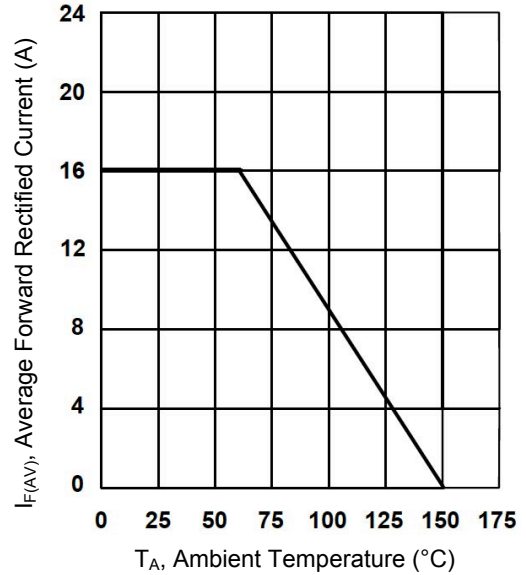


Figure 2. Forward Current Derating Curve

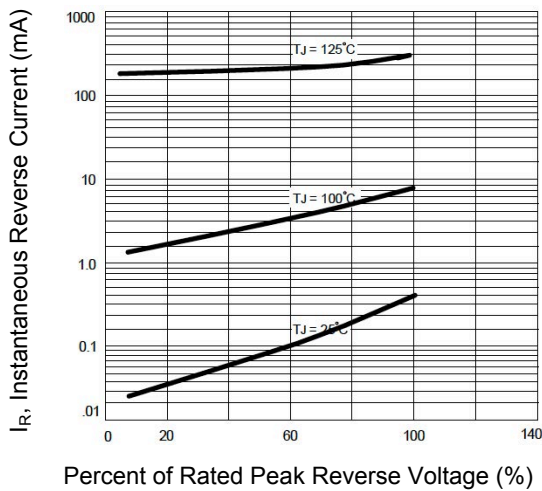


Figure 3. Typical Reverse Characteristics

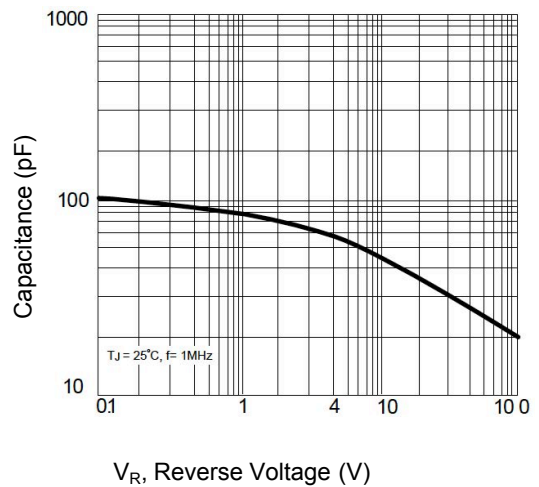
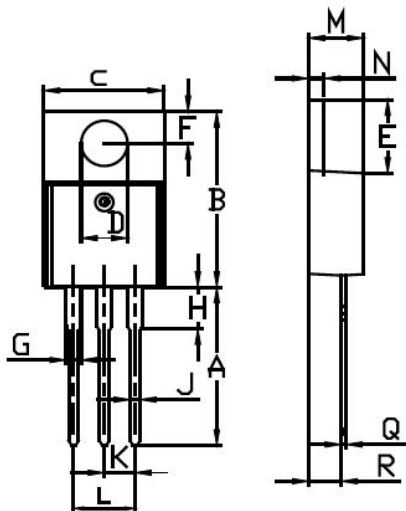


Figure 4. Typical Junction Capacitance

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