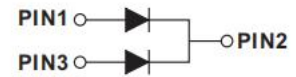
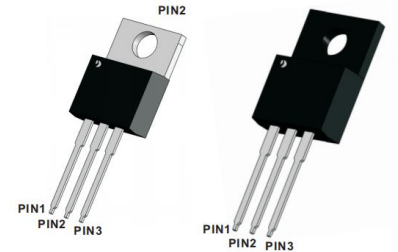


Features

- ◆ High current capability
- ◆ Low forward voltage drop
- ◆ Low power loss, high efficiency
- ◆ High surge capability
- ◆ Meets MSL level 1, per J-STD-020
- ◆ Plastic package has underwriters laboratory flammability 94V-0



Applications

- ◆ Low voltage high frequency inverters
- ◆ DC/DC converters
- ◆ Adapter、Lighting
- ◆ Polarity protection applications

Dimensions (TO-220ABW/ITO-220ABW)

TO-220ABW

Symbol	Millimeters		Mil	
	Min.	Max.	Min.	Max.
A	9.85	10.45	388	411
B	2.54	2.94	100	116
b	1.14	1.77	45	70
b1	0.62	0.94	24	37
C	4.42	4.76	174	187
D	14.6	16.0	575	630
E	1.14	1.40	45	55
F	2.77	3.37	109	133
G	2.54 typ.		100 typ.	
H	0.35	0.64	14	25
L	2.80	4.20	110	165
L1	13.08	14.79	515	582
M	6.39 typ.		252 typ.	
N	3.84 typ.		151 typ.	
J	4.65 typ.		183 ref.	
T	7.7 ref.		303 ref.	
K	3.22 ref.		127 ref.	

ITO-220ABW

Symbol	Millimeters		Mil	
	Min.	Max.	Min.	Max.
A	9.85	10.5	388	413
B	2.54	2.85	100	112
b	1.1	1.4	43	55
b1	0.5	0.8	20	31
C	4.4	4.7	173	185
D	14.7	16.0	579	630
E	2.5	2.9	98	114
F	2.95	3.55	116	140
G	2.54 typ.		100 typ.	
H	0.41	0.70	16	28
L	2.3	2.9	91	114
L1	13.0	14.3	512	563
L2	10.5	11.8	413	465
M	6.3	7.0	248	276
N	3.4 typ.		134 typ.	

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

Parameter		TO-220	MBR 2040CT	MBR 2045CT	MBR 2060CT	MBR 20100CT	MBR 20150CT	MBR 20200CT	Unit
		ITO-220	MBR 2040FT	MBR 2045FT	MBR 2060FT	MBR 20100FT	MBR 20150FT	MBR 20200FT	
Maximum Recurrent Peak Reverse Voltage		V _{RRM}	40	45	60	100	150	200	V
Maximum RMS Voltage		V _{RMS}	28	32	42	70	105	140	V
Maximum DC Blocking Voltage		V _{DC}	40	45	60	100	150	200	V
Maximum Average Forward Current	per leg	I _{F(AV)}	10						A
	per device		20						
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) per leg		I _{FSM}	150						A
Max Instantaneous Forward Voltage at 5A		V _F	-	<0.5	-	-	-	-	V
Max Instantaneous Forward Voltage at 10 A(per leg)			0.70		0.75	0.85	0.90	0.92	
Maximum DC Reverse Current at Rated DC Reverse Voltage		I _{R@25℃}	0.1			0.05			mA
		I _{R@125℃}	20			20			
Thermal resistance		R _{θJA}	45						℃/W
		R _{θJC}	8						
Typical Junction Capacitance (f=1MHz,V _R =4V)		C _J	600		400				pF
Junction temperature		T _j	-55~+150				-55~+175		℃
Storage temperature		T _{stg}	-55 ~+150				-55~+175		℃

Ratings and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

Figure 1. Typical Forward Current Derating Curve

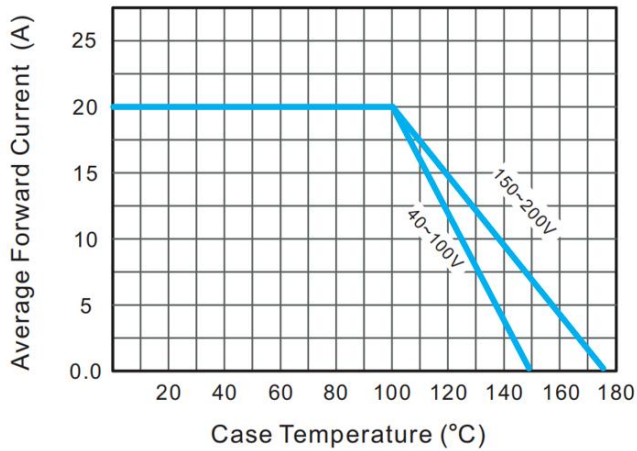


Fig.2 Typical Reverse Characteristics

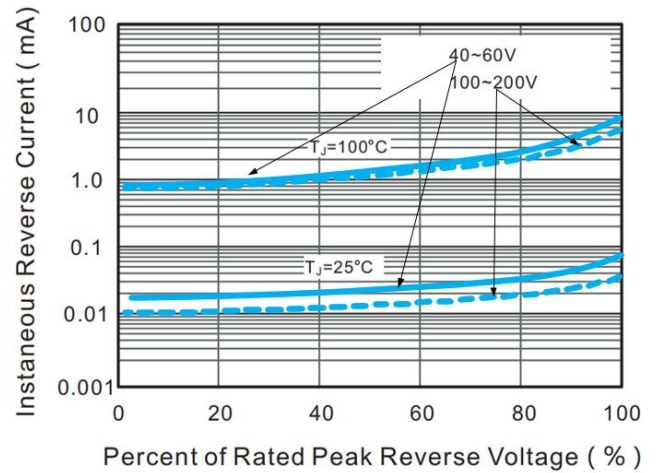


Figure 3. Typical Forward Characteristic(per leg)

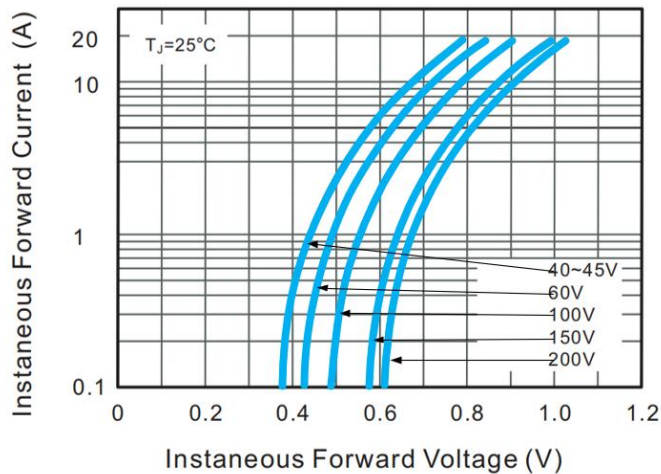


Figure 4. Typical Junction Capacitance

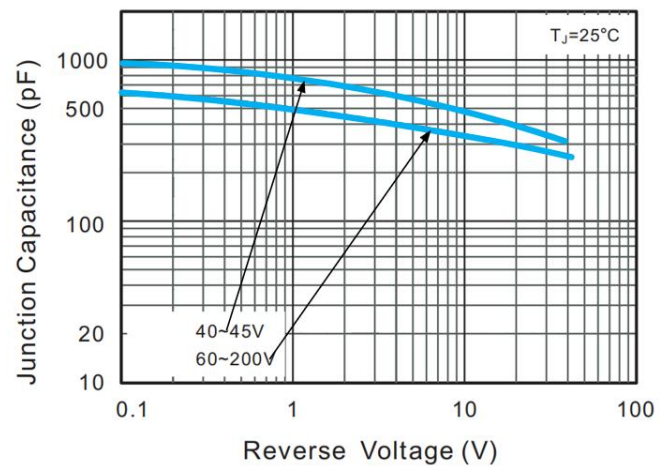


Figure 5. Maximum Non-Repetitive Peak Forward Surge Current

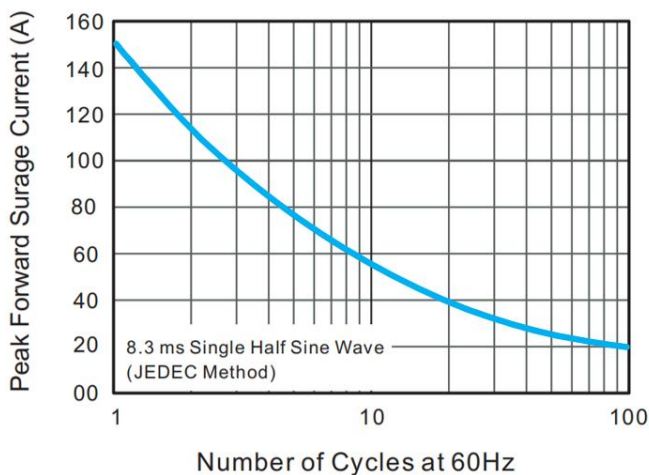
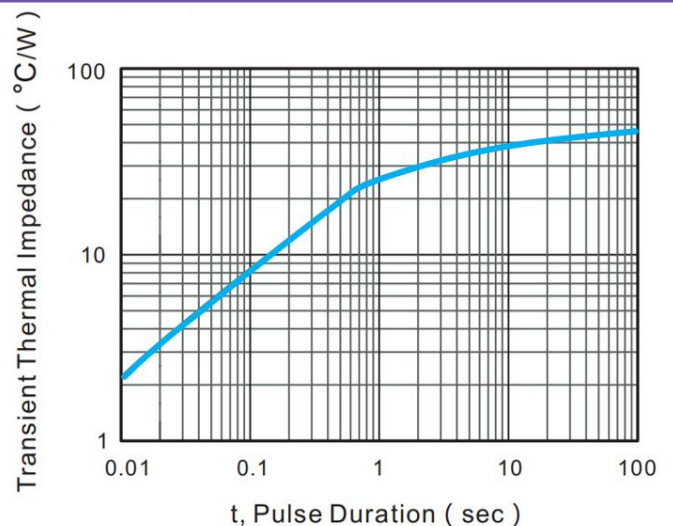


Figure 6. Typical Transient Thermal Impedance



Wave Soldering Parameters

