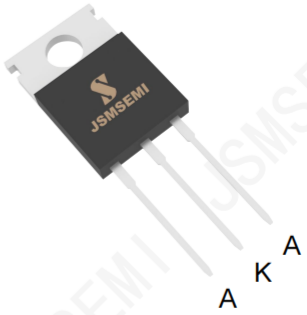
Features:

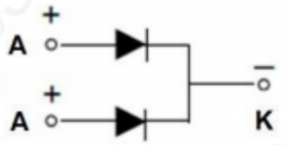
- Common Cathode Structure
- Low Power Loss and High Efficiency
- Low Forward Voltage Drop
- High Surge Capability



TO-220-3

Application:

- High Frequency Switch
- Free Wheeling,and Polarity Protection Applications



Absolute Maximum Ratings(Tc=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{RRM}	Maximum Repetitive Reverse Voltage	100	V
V_R	Maximum DC Reverse Voltage	100	V
$I_{F(AV)}$	Average Rectified Forward Current, Tc=120°C	5(Per Leg) 10(Per Device)	A
I_{FSM}	Peak Forward Surge Current,8.3ms Half Sine wave	100	A
Tj	Operating Junction Temperature	150	°C
Tstg	Storage Temperature Range	-55 to+150	°C

Thermal Characteristics(Tc=25°C unless otherwise noted)

Symbol	Parameter	Max	Unit
$R_{\theta JC}$	Thermal Resistance,Junction to Case Per Leg	2.5	°C /W
$R_{\theta JA}$	Thermal Resistance,Junction to Ambient Per Leg	105	°C /W

Electrical Characteristics(Tc=25°C unless otherwise noted)

Symbol	Parameter	Test Conditons	Min	Max	Unit
V_{RRM}	Maximum Repetitive Reverse Voltage	I_R=100μA	100		V
I_R	Reverse Current	V_R =100V Tc=25°C V_R =100V Tc=125°C		0.1 5	mA
V_F	Forward Voltage	I_F=5A Tc=25°C I_F=5A Tc=125°C I_F=10A Tc=25°C I_F=10A Tc=125°C		0.86 0.76 0.96 0.86	V

Typical Performance Characteristics

Figure 1. Forward Current Characteristics

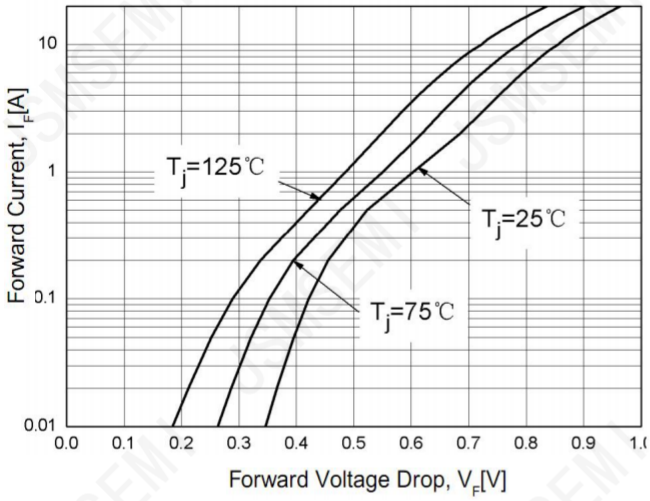


Figure 2. Reverse Leakage Current

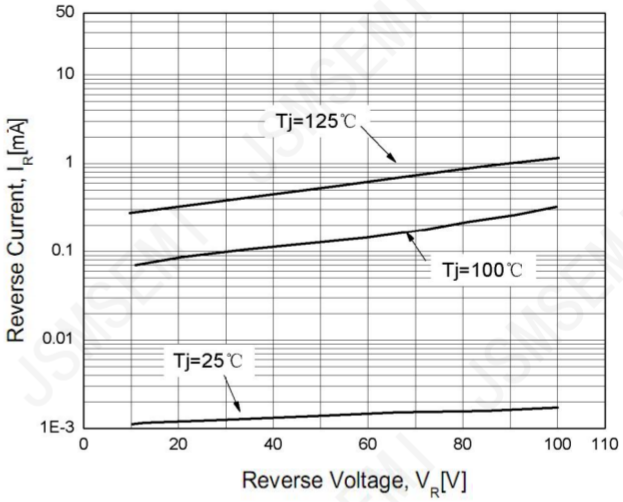


Figure 3. Junction Capacitance

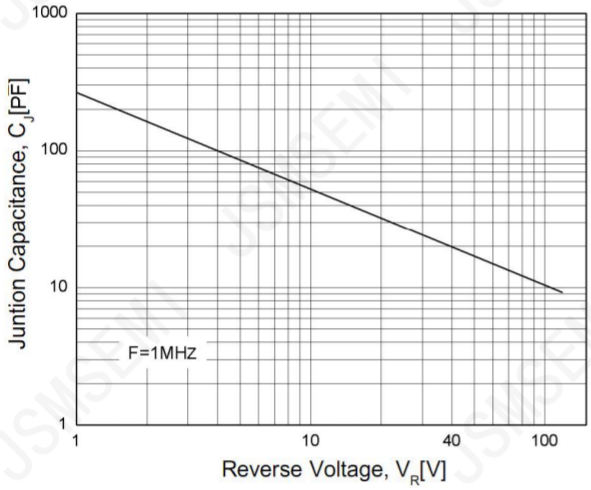
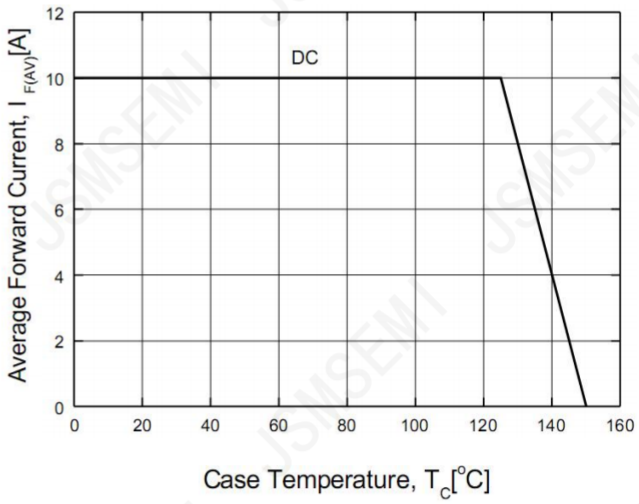


Figure 4. Power Derating

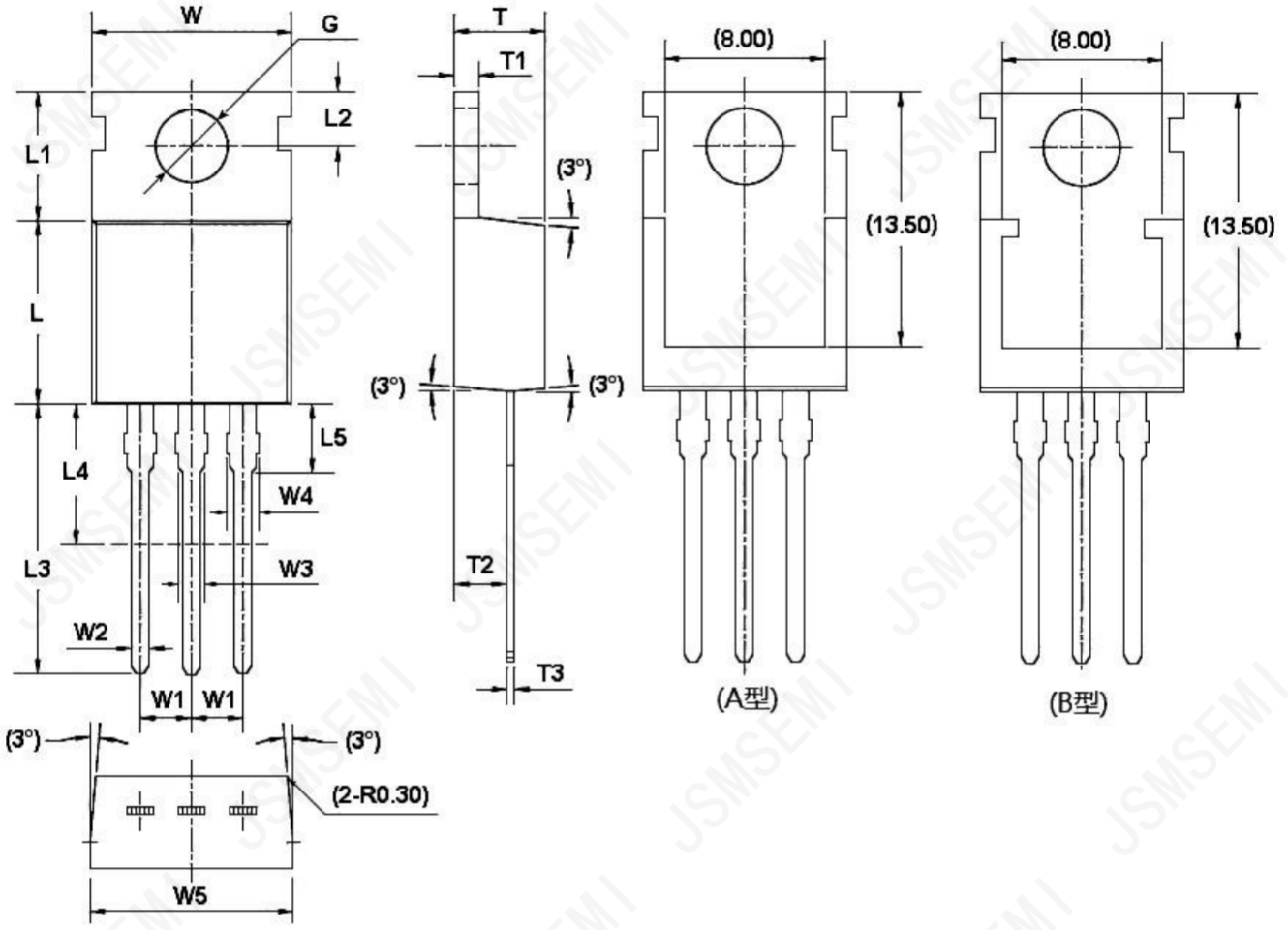


Ordering Information

Order number	Package	Marking	Operation Temperature Range	MSL Grade	Ship, Quantity	Green
MBR10100CT-JSM	TO-220-3	MBR10100CT	-55 to 150°C	3	TUBE,1000	Rohs

Package Information

TO-220-3



Unit: mm

Symbol	Size		Symbol	Size		Symbol	Size		Symbol	Size	
	Min	Max		Min	Max		Min	Max		Min	Max
W	9.66	10.28	W5	9.80	10.20	L4**	6.20	6.60	T3	0.45	0.60
W1	2.54（TYP）		L	9.00	9.40	L5	2.79	3.30	G(Φ)	3.50	3.70
W2	0.70	0.95	L1	6.40	6.80	T	4.30	4.70			
W3	1.17	1.37	L2	2.70	2.90	T1	1.15	1.40			
W4*	1.32	1.72	L3	12.70	14.27	T2	2.20	2.60			