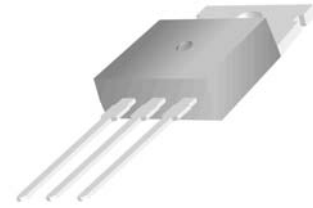


● **Features:**

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

● **Application:**

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



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

Symbol	Parameter	Value	Unit
V_{RRM}	Maximum Repetitive Reverse Voltage	45	V
V_R	Maximum DC Reverse Voltage	45	V
$I_{F(AV)}$	Average Rectified Forward Current, $T_c=120^{\circ}\text{C}$	10(Per Leg) 20(Per Device)	A
I_{FSM}	Peak Forward Surge Current, 8.3ms Half Sine wave	150	A
T_j	Operating Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55 to +150	$^{\circ}\text{C}$

Thermal Characteristics($T_c=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Max	Unit
$R_{\theta JC}$	Thermal Resistance, Junction to Case Per Leg	2.2	$^{\circ}\text{C}/\text{W}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient Per Leg	92	$^{\circ}\text{C}/\text{W}$

Electrical Characteristics($T_c=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Test Conditions	Min	Max	Unit
V_{RRM}	Maximum Repetitive Reverse Voltage	$I_R=100\mu\text{A}$	45		V
I_R	Reverse Current	$V_R=45\text{V}$ $T_c=25^{\circ}\text{C}$ $V_R=45\text{V}$ $T_c=125^{\circ}\text{C}$		0.1 50	mA
V_F	Forward Voltage	$I_F=10\text{A}$ $T_c=25^{\circ}\text{C}$ $I_F=10\text{A}$ $T_c=125^{\circ}\text{C}$ $I_F=20\text{A}$ $T_c=25^{\circ}\text{C}$ $I_F=20\text{A}$ $T_c=125^{\circ}\text{C}$		0.65 0.60 0.80 0.75	V

Typical Performance Characteristics

Figure 1. Forward Current Characteristics

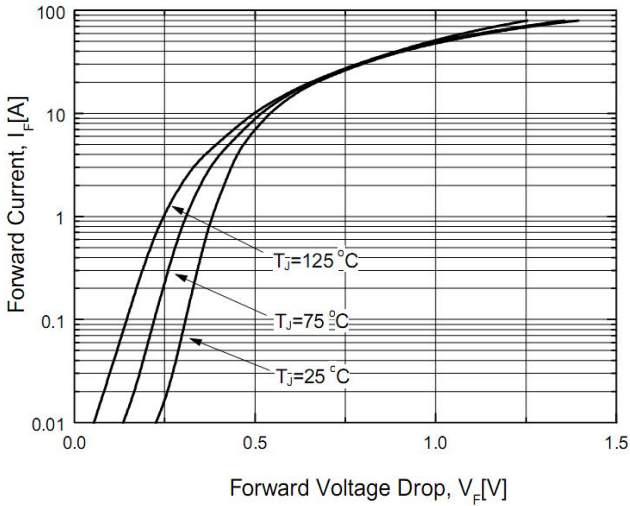


Figure 2. Reverse Leakage Current

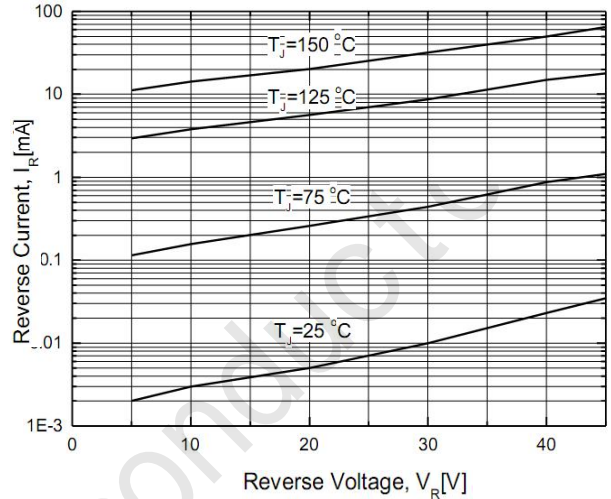


Figure 3. Junction Capacitance

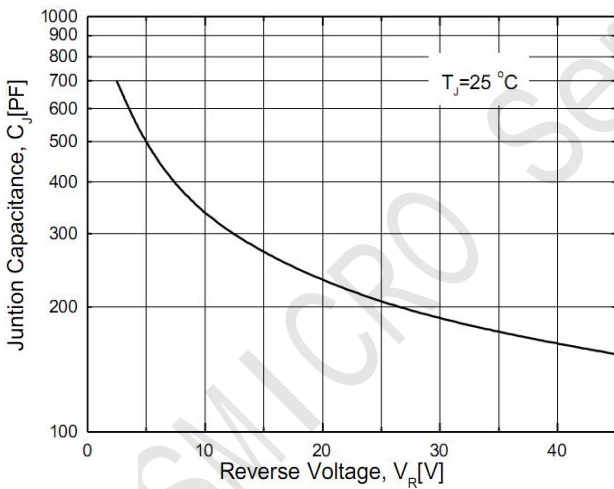
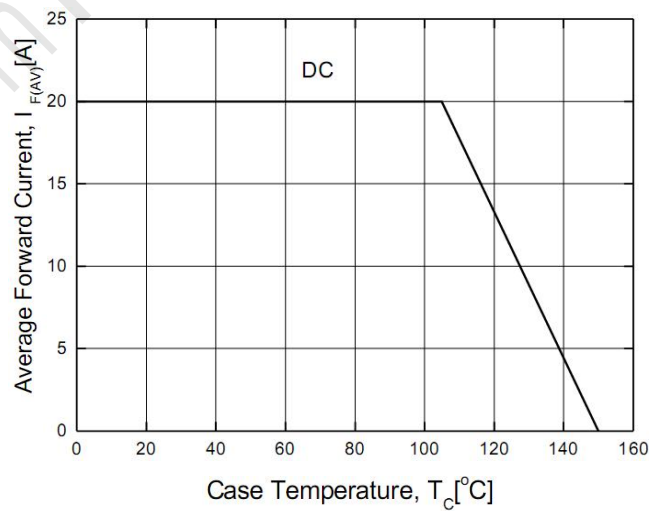
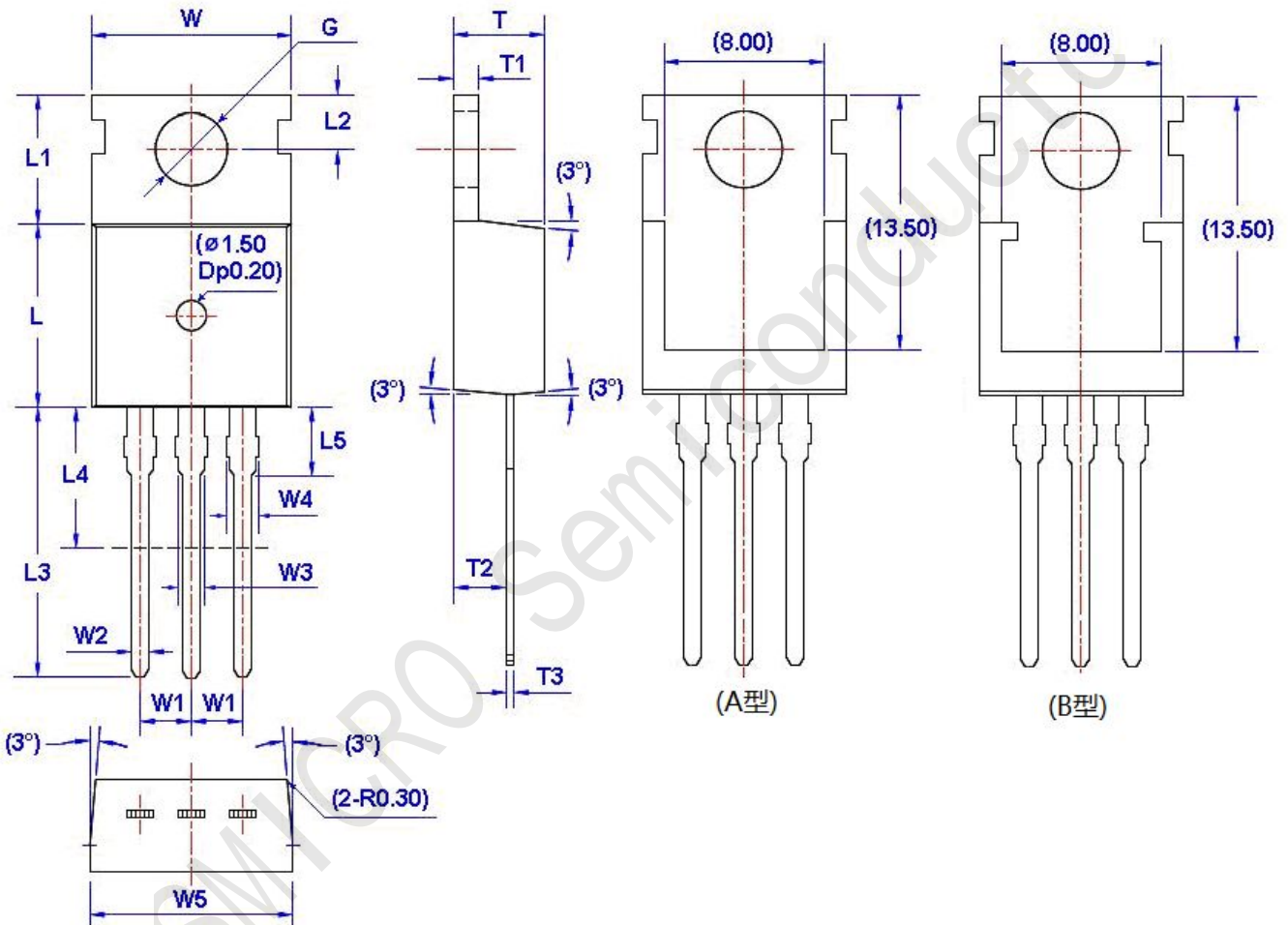


Figure 4. Power Derating



TO-220AB

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			