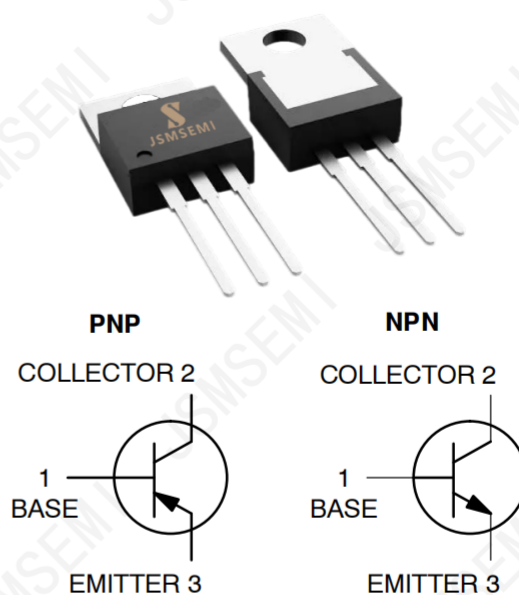


DESCRIPTION

- Collector-Emitter Breakdown Voltage
 $-V_{(BR)CEO} = 150V(\text{Min})$
- Collector-Emitter Saturation Voltage
 $-V_{CE(sat)}: 0.5V(\text{Max}) @ I_C = 1A$
- Complement to Type
 MJE15030G-JSM (NPN)
 MJE15031G-JSM (PNP)

APPLICATIONS

- High-Frequency Audio Amplifiers



ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	150	V
V_{CEO}	Collector-Emitter Voltage	150	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	8	A
I_{CM}	Collector Current-Peak	16	A
I_B	Base Current-Continuous	2	A
P_C	Total Power Dissipation @ $T_c=25^{\circ}\text{C}$	50	W
T_J	Junction Temperature	-65~150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^{\circ}\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	2.5	$^{\circ}\text{C/W}$

ELECTRICAL CHARACTERISTICS ($T_C=25^{\circ}\text{C}$ unless otherwise specified)

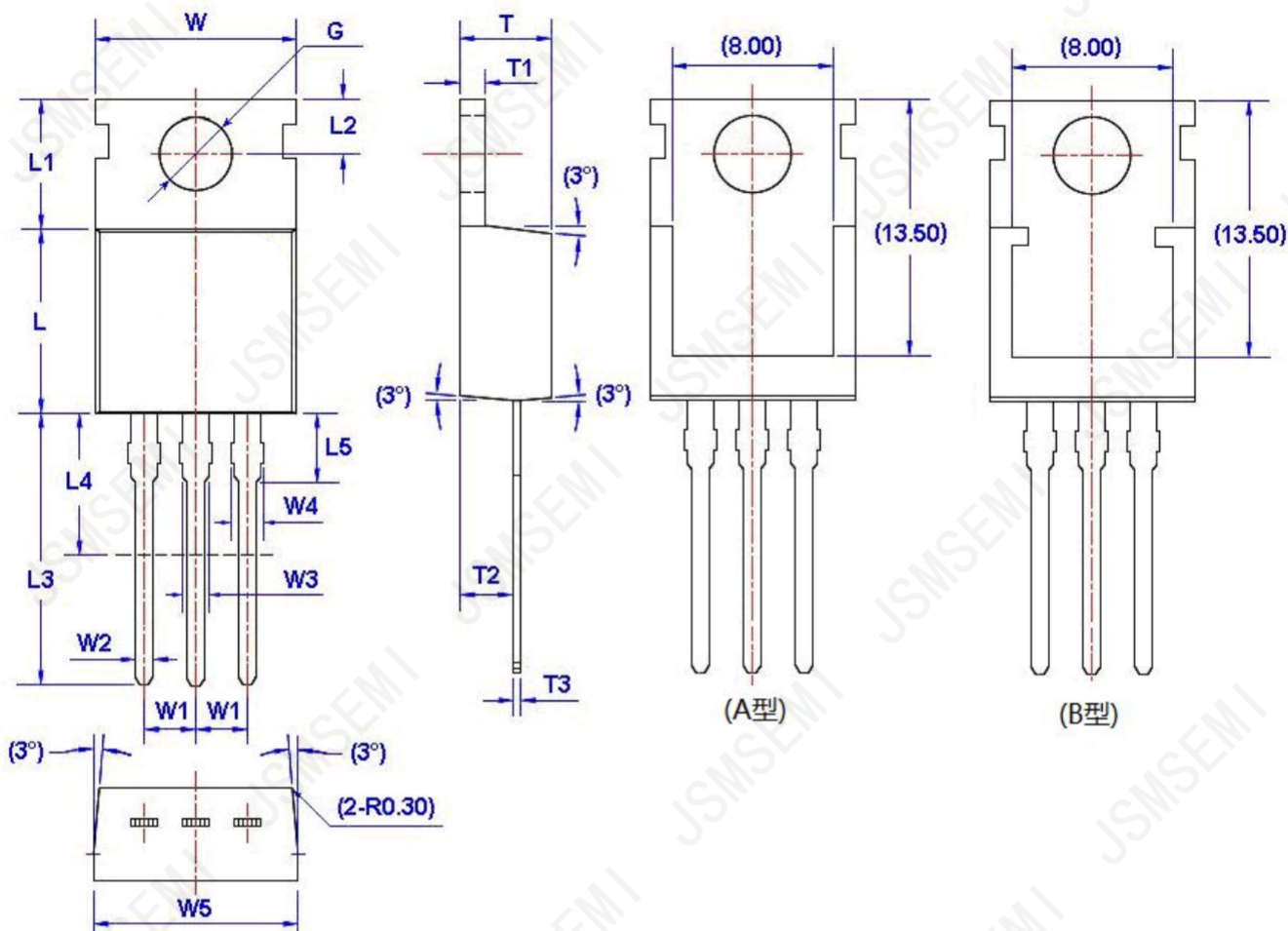
SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=10\text{mA}$, $I_B=0\text{A}$	150	--	--	V
I_{CEO}	Collector Cutoff Current	$V_{CE}=150\text{V}$, $I_B=0\text{A}$	--	--	0.1	mA
I_{CBO}	Collector Cutoff Current	$V_{CB}=150\text{V}$, $I_E=0\text{A}$	--	--	10	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=5\text{V}$, $I_C=0\text{A}$	--	--	10	μA
h_{FE1}	DC Current Gain	$I_C=0.1\text{A}$, $V_{CE}=2\text{V}$	40	--	--	--
h_{FE2}	DC Current Gain	$I_C=2\text{A}$, $V_{CE}=2\text{V}$	40	--	--	--
h_{FE3}	DC Current Gain	$I_C=3\text{A}$, $V_{CE}=2\text{V}$	40	--	--	--
h_{FE4}	DC Current Gain	$I_C=4\text{A}$, $V_{CE}=2\text{V}$	20	--	--	--
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=1\text{A}$, $I_B=0.1\text{A}$	--	--	0.5	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C=1\text{A}$, $V_{CE}=2\text{V}$	--	--	1.0	V

Ordering Information

Order number	Package	Marking	Operation Temperature Range	MSL Grade	Ship,Quantity	Green
MJE15030G-JSM	TO-220-3	MJE15030G	-65 to 150°C	1	Tube,1000	Rohs
MJE15031G-JSM	TO-220-3	MJE15031G	-65 to 150°C	1	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			

Revision History

Rev.	Change	Date
V1.0	Initial version	6/27/2019

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