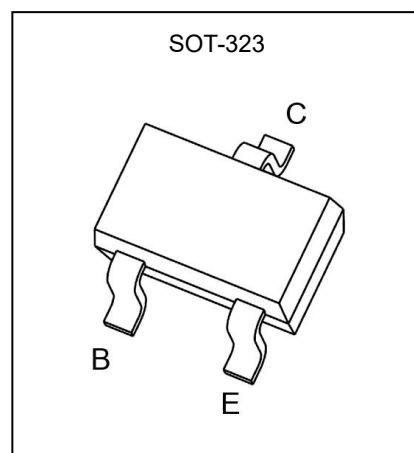


MMST5551 Transistor(NPN)

Feature

- Switching Transistor
- Collector-Emitter Voltage $V_{CE}=160V$
- Collector Current $I_C=0.2A$

Marking: K4N



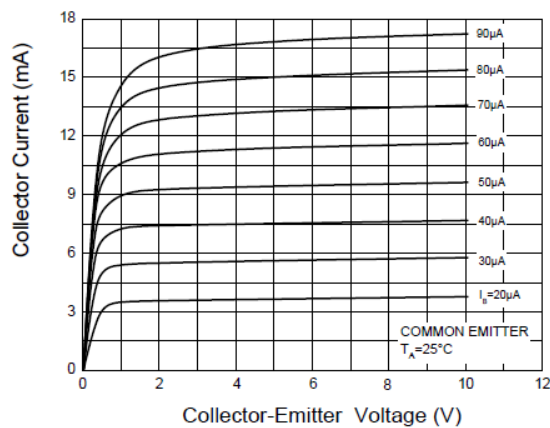
MAXIMUM RATINGS ($T_A=25^{\circ}C$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	180	V
Collector-Emitter Voltage	V_{CEO}	160	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current -Continuous	I_C	0.2	A
Power Dissipation	P_d	0.2	W
Junction Temperature	T_J	-55~ +150	$^{\circ}C$
Storage Temperature	T_{STG}	-55~ +150	$^{\circ}C$

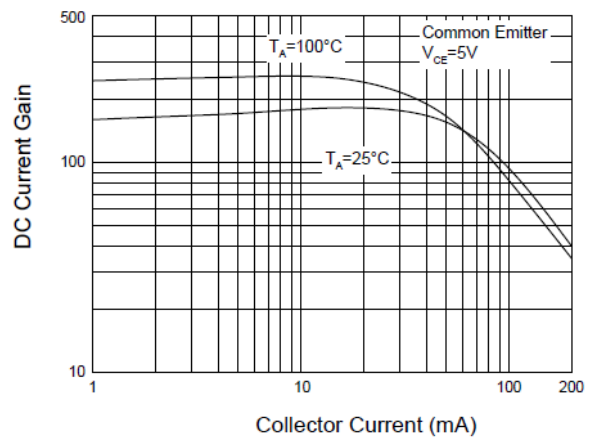
ELECTRICAL CHARACTERISTICS($T_A=25^{\circ}C$ unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Max	Unit
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	180		V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	160		V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	6		V
Base Cut-off Current	I_{CBO}	$V_{CB}=120V, I_E=0V$		50	nA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=4V, I_C=0$		50	nA
DC Current Gain	h_{FE}	$V_{CE}=5V, I_C=1mA$	80		
		$V_{CE}=5V, I_C=10mA$	100	300	
		$V_{CE}=5V, I_C=50mA$	30		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=10mA, I_B=1mA$		0.15	V
		$I_C=50mA, I_B=5mA$		0.2	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=10mA, I_B=1mA$		1	V
		$I_C=50mA, I_B=5mA$		1	V
Transition Frequency	f_T	$V_{CE}=10V, I_C=20mA, f=100MHz$	100	300	MHZ
Collector Output Capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$		6	pF

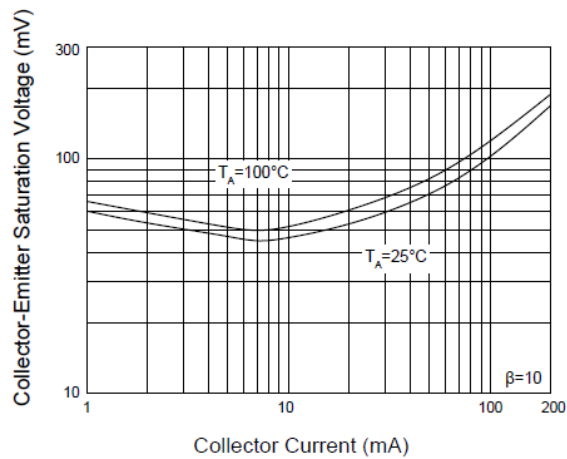
Typical Characteristics



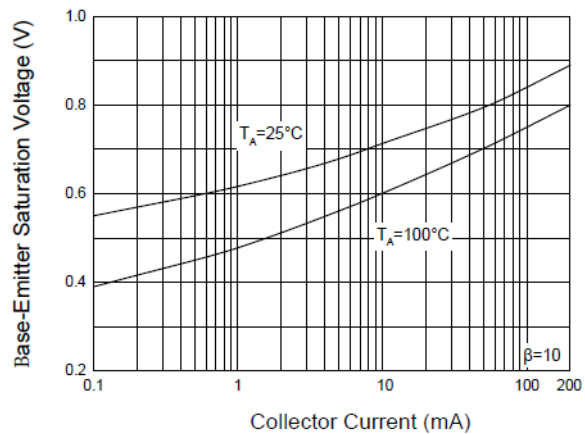
Static Characteristic



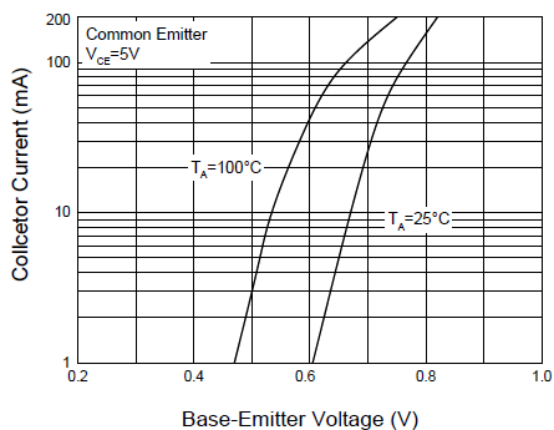
DC Current Gain Characteristics



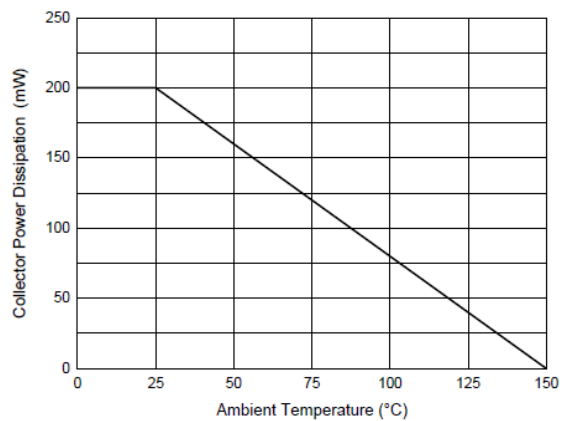
Collector-Emitter Saturation Voltage Characteristics



Base-Emitter Saturation Voltage Characteristics



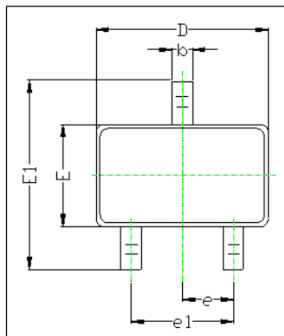
Base-Emitter Voltage Characteristics



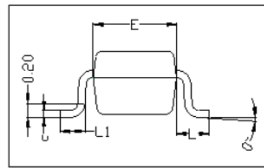
Collector Power Derating Curve

SOT-323 Package Information

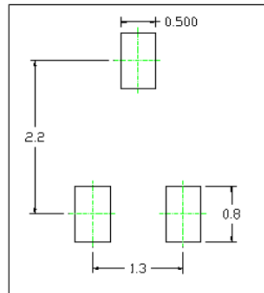
TOP VIEW



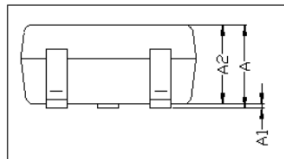
SIDE VIEW



SOLDERING PATTERN



FRONT VIEW



SYMBOL	DIMENSIONS IN MILLIMETER	
	MIN	MAX
A	0.900	1.000
A1	0.00	0.100
A2	0.900	1.000
b	0.200	0.400
c	0.080	0.150
D	2.000	2.200
E	1.150	1.350
E1	2.150	2.400
e	0.650 TYP.	
e1	1.200	1.400
L	0.525 REF.	
L1	0.260	0.450
θ	0°	8°

Notice:

1. Lead plating: Pb free solder
2. Lead thickness includes solder plating
3. Other Tolerance: ± 0.008
4. Dimensions are exclusive of Burrs, Mold Flash and Tie Bar extrusions
5. Unit: mm

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- GreenPower Electronics reserves the right to improve product design function and reliability without notice.
- Any and all semiconductor products have certain probability to fail or malfunction, which may result in personal injury, death or property damage. Customer are solely responsible for providing adequate safe measures when design their systems.
- GreenPower Electronics products belong to consumer electronics or other civilian electronic products.