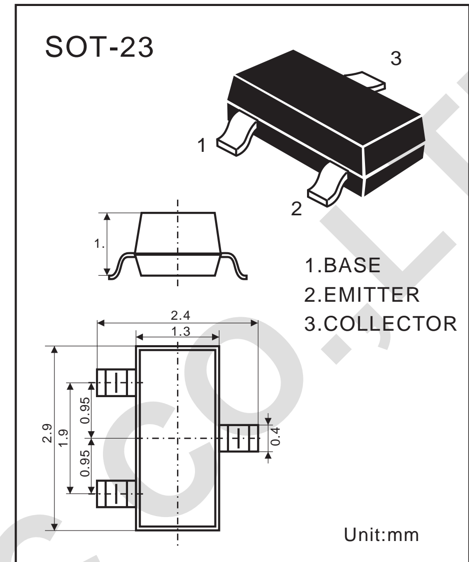
WEJ®

RoHS

MMBT5551LT1

NPN EPITAXIAL SILICON TRANSISTOR



HIGH VOLTAGE TRANSISTOR

- Collector Dissipation:Pc-225mW(Ta=25°)
- Collector-Emiller Voltage:V_{CEO}=160V

ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	180	V
Collector-Emitter Voltage	V_{CEO}	160	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	Ic	600	mA
Collector Dissipation Ta=25°C*	P_D	225	mW
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-55~150	°C

Electrical Characteristics

(Ta=25°C)

Parameter	Symbol	MIN.	TYP.	MAX.	Unit	Condition
Collector-Base Breakdown Voltage	BV_{CBO}	180			V	I_C=100μA I_E=0
Collector-Emitter Breakdown Voltage#	BV_{CEO}	160			V	I_C=1mA I_B=0
Emitter-Base Breakdown Voltage	BV_{EBO}	6			V	I_E=10μA I_C=0
Collector-Base Cutoff Current	I_{CBO}			50	nA	V_{CB}=120V, V_C=0
Emitter-Base Cutoff Current	I_{EBO}			50	nA	V_{CB}=4V, I_C=0
DC Current Gain	h_{FE1}	80				V_{CE}=5V, I_C=1mA
DC Current Gain	h_{FE2}	80				V_{CE}=5V, I_C=-10mA
DC Current Gain	h_{FE3}	30		250		V_{CE}=5V, I_C=50mA
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			0.5	V	I_C=50mA, I_B=5mA
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			0.15	V	I_C=10mA, I_B=1mA
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			1	V	I_C=50mA, I_B=1mA
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			1	V	I_C=10mA, I_B=1mA
Current Gain-Bandwidth Product	f_T	100		300	MHz	V_{CE}=10V, I_C=10mA,f=100MHz

*Total Device Dissipation:FR=1X0.75X0.062 in Board Derate 25°C

#Pulse Test: Pulse Width 300uS Duty cycle 2%

DEVICE MARKING:

2N5551S=Z1

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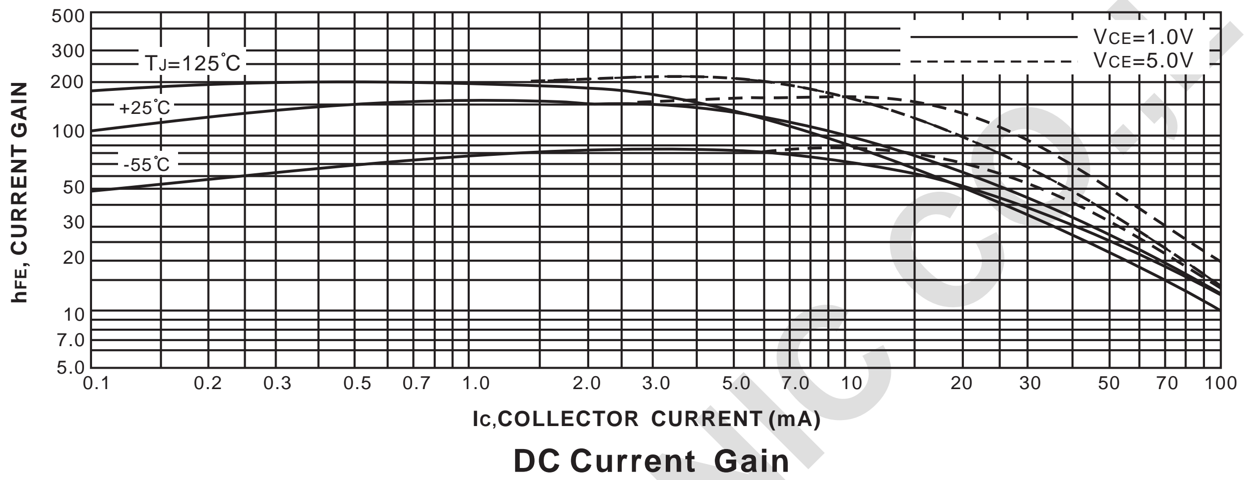
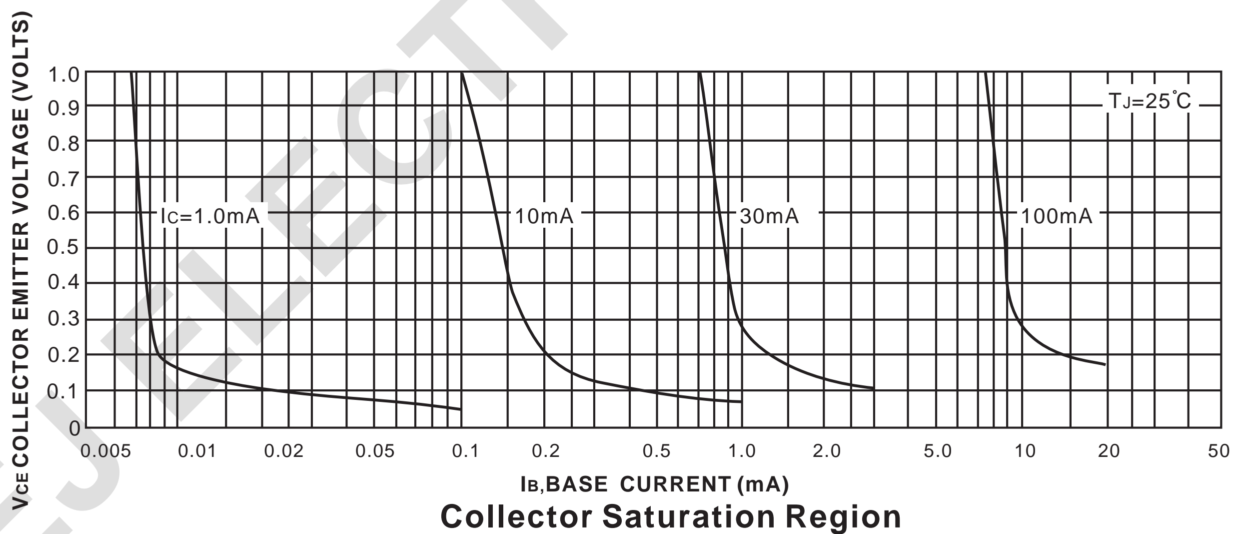
Typical Characteristics



DC Current Gain



Collector Saturation Region

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