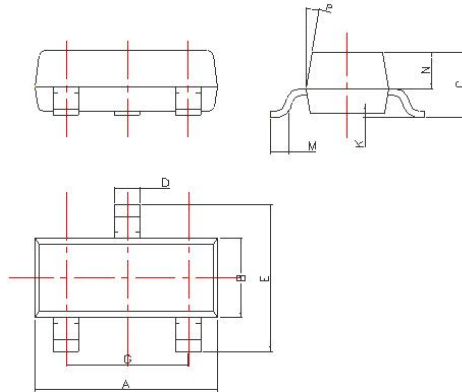
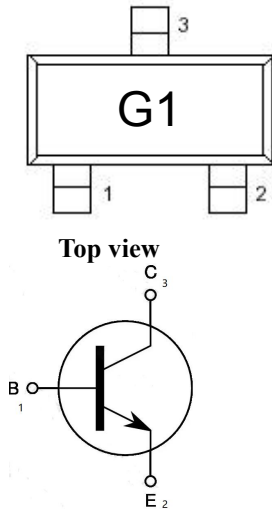


## CDT5551-ME

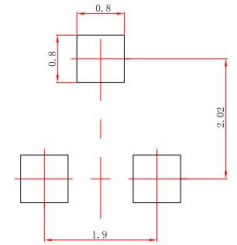
## TRANSISTOR

## Marking: G1

## SOT-23 Dimension

SOT-23  
Suggested Layout

DIM	Millimeters
A	2.85~3.04
B	1.30±0.10
C	1.00±0.10
D	0.45±0.05
E	2.25~2.55
G	1.90±0.1
K	0.00-0.10
M	0.20 min
N	0.60±0.10
P	7±2°



mm(±0.05mm)

## MAXIMUM RATINGS (Ta=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Emitter Voltage	$V_{CEO}$	160	Vdc
Collector-Base Voltage	$V_{CBO}$	180	Vdc
Emitter-Base Voltage	$V_{EBO}$	6.0	Vdc
Collector Current	$I_C$	600	mAdc

## THERMAL CHARACTERISTICS

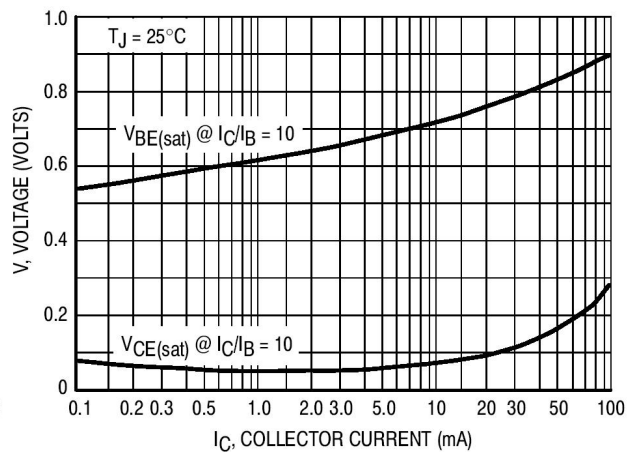
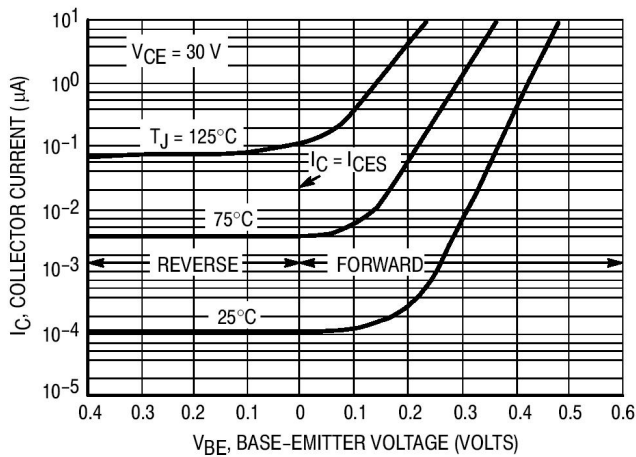
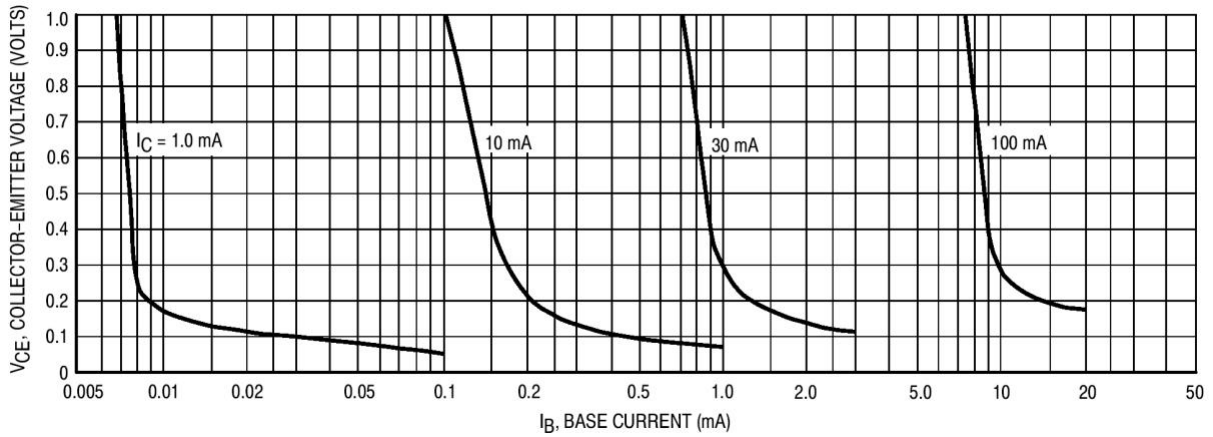
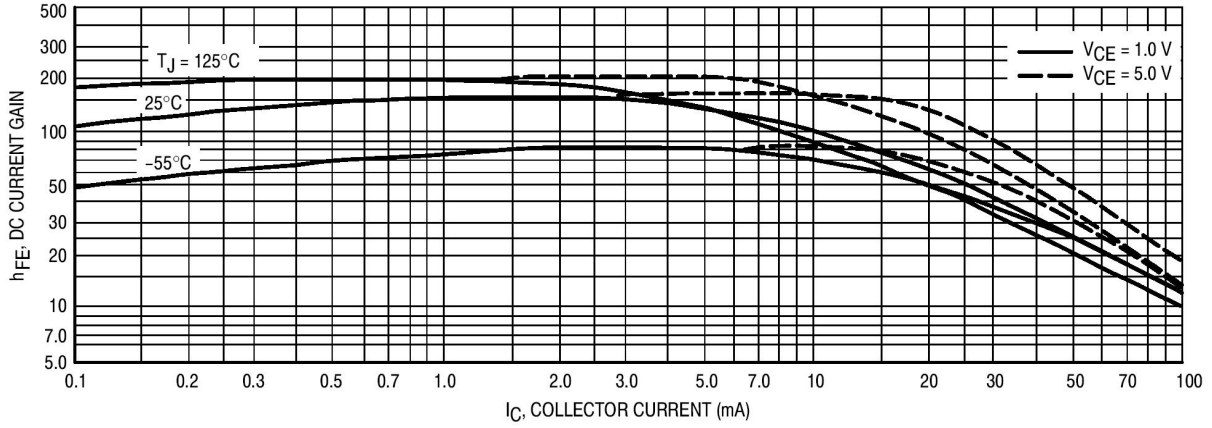
Characteristic	Symbol	Max	Unit
Total power dissipation (Tamb=25°C, note 1)	$P_D$	225	mW
Junction and Storage Temperature	$T_j, T_{stg}$	150, -65~150	°C
Operating ambient temperature	$T_{amb}$	-65~150	°C
Thermal resistance from junction to ambient	$R_{thj-a}$	556	K/W

Characteristic	Symbol	Test Condition	Min	Max	Unit
collector cut-off current	$I_{CBO}$	$V_{CB} = 120Vdc, I_E = 0$	--	50	nA
emitter cut-off current	$I_{EBO}$	$V_{EB} = 4.0Vdc, I_C = 0$	--	50	nA
Collector Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 1.0mAdc, I_B = 0$	160	--	Vdc
Collector Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 100 \mu Adc, I_E = 0$	180	--	Vdc
Emitter Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 10 \mu Adc, I_C = 0$	6.0	--	Vdc
DC current gain	$h_{FE}$	$I_C = 1.0mAdc, V_{CE} = 5.0Vdc$	80	--	--
		$I_C = 10mAdc, V_{CE} = 5.0Vdc$	100	300	--
		$I_C = 50mAdc, V_{CE} = 5.0Vdc$	30	--	--
collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 10mAdc, I_B = 1.0mAdc$	--	0.15	Vdc
		$I_C = 50mAdc, I_B = 5.0mAdc$	--	0.2	Vdc
Base Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 10mAdc, I_B = 1.0mAdc$	--	1.0	Vdc
		$I_C = 50mAdc, I_B = 5.0mAdc$	--	1.0	Vdc
Transition Frequency	$f_T$	$V_{CE} = 10V, I_E = 10mA, f = 100MHz$	100	300	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = 10V, I_E = 0, f = 1MHz$	--	6	pF
Input Capacitance	$C_{ib}$	$V_{BE} = 0.5Vdc, I_C = 0, f = 1.0MHz$	--	20	pF
Small-Signal Current Gain	$h_{fe}$	$V_{CE} = 10Vdc, I_C = 1.0mAdc, f = 1.0kHz$	50	200	--
Noise Figure	NF	$V_{CE} = 5.0Vdc, I_C = 250 \mu Adc, R_g = 1.0k\Omega, f = 10Hz \sim 15.7kHz$	--	8	dB

# CDT5551-ME

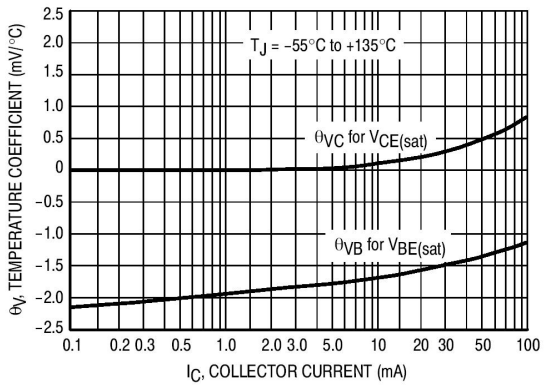
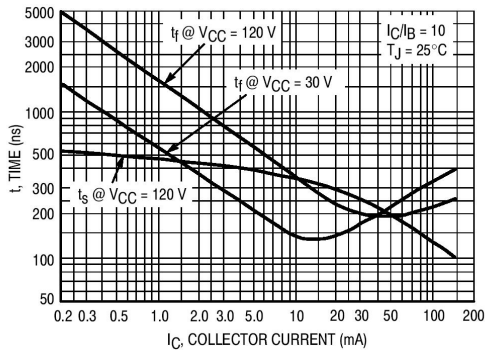
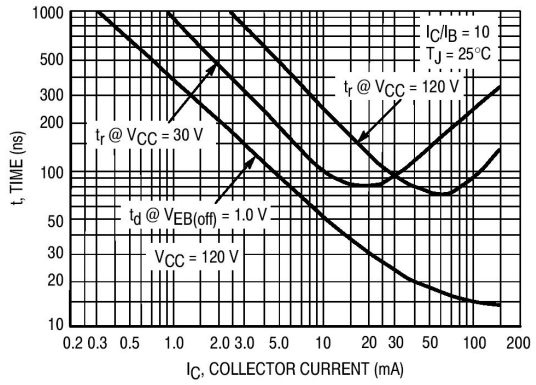
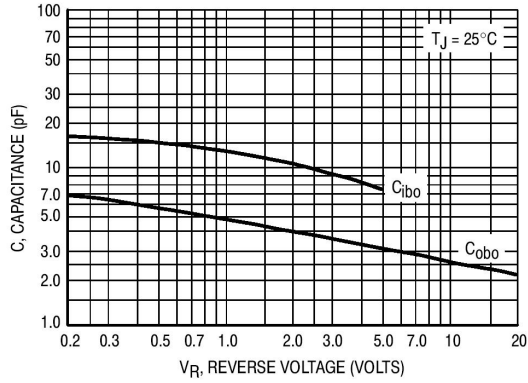
## TRANSISTOR

### Typical Characteristics



# CDT5551-ME

## TRANSISTOR



Note: Specifications are subject to change without notice. For more detail and update, please visit our website.