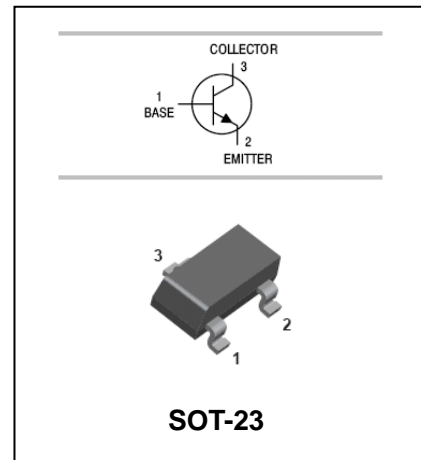


## NPN General Purpose Amplifier

## MMBT5550

### FEATURES

- Epitaxial planar die construction.
- Ultra-small surface mount package.



### APPLICATIONS

- High voltage transistors.
- General purpose application.

### ORDERING INFORMATION

Type No.	Marking	Package Code
MMBT5550	M1F	SOT-23

### MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Unit
$V_{CBO}$	Collector-Base Voltage	160	V
$V_{CEO}$	Collector-Emitter Voltage	140	V
$V_{EBO}$	Emitter-Base Voltage	6	V
$I_C$	Collector Current -Continuous	600	mA
$P_C$	Collector Dissipation	225	mW
$T_j, T_{stg}$	Junction and Storage Temperature	-55to+150	°C

### ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

## NPN General Purpose Amplifier

## MMBT5550

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A$ $I_E=0$	160		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1.0mA$ $I_B=0$	140		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A$ $I_C=0$	6		V
Collector cut-off current	$I_{CBO}$	$V_{CB}=100V$ $I_E=0$		100	nA
Emitter cut-off current	$I_{EBO}$	$V_{EB}=4V$ $I_E=0$		50	nA
DC current gain	$h_{FE}$	$V_{CE}=5.0V$ $I_C=1.0mA$	60	250	
		$V_{CE}=5.0V$ $I_C=10mA$	60		
		$V_{CE}=5.0V$ $I_C=50mA$	20		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=10mA$ $I_B=1.0mA$		0.15	V
		$I_C=50mA$ $I_B=5.0mA$		0.25	
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=10mA$ $I_B=1.0mA$		1.0	V
		$I_C=50mA$ $I_B=5.0mA$		1.2	

### TYPICAL CHARACTERISTICS @ $T_a=25^\circ C$ unless otherwise specified

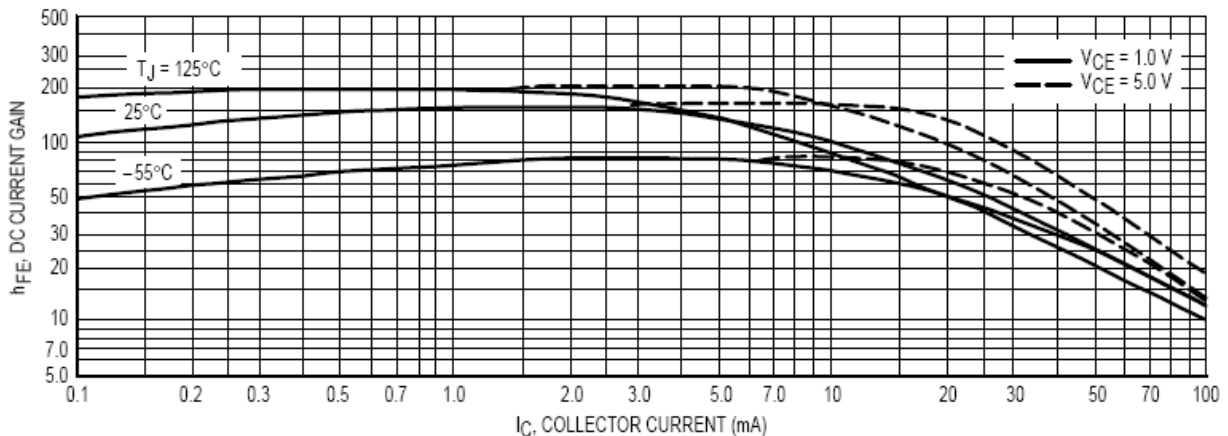


Figure 1. DC Current Gain

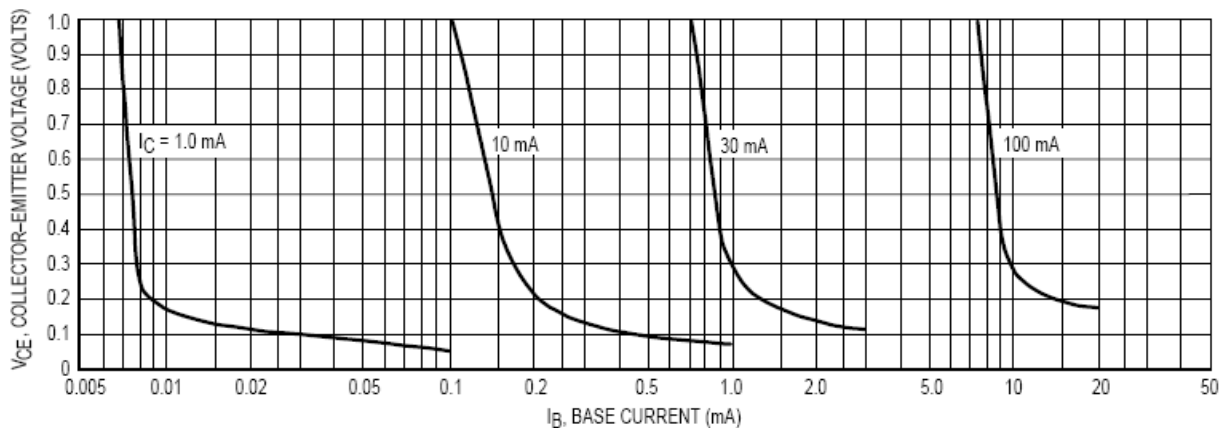


Figure 2. Collector Saturation Region

## NPN General Purpose Amplifier

## MMBT5550

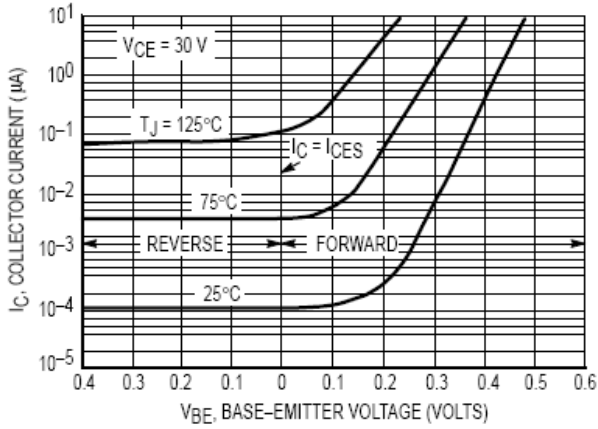


Figure 3. Collector Cut-Off Region

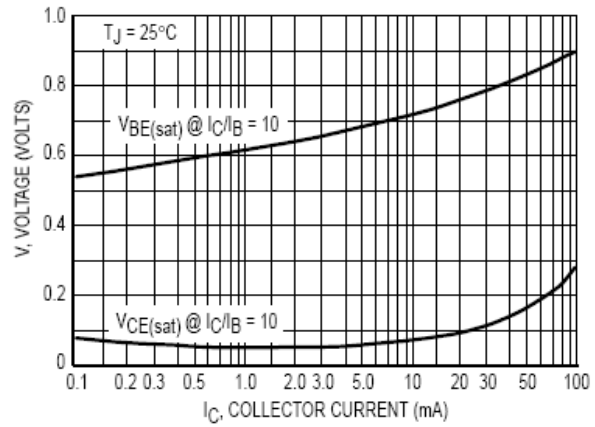
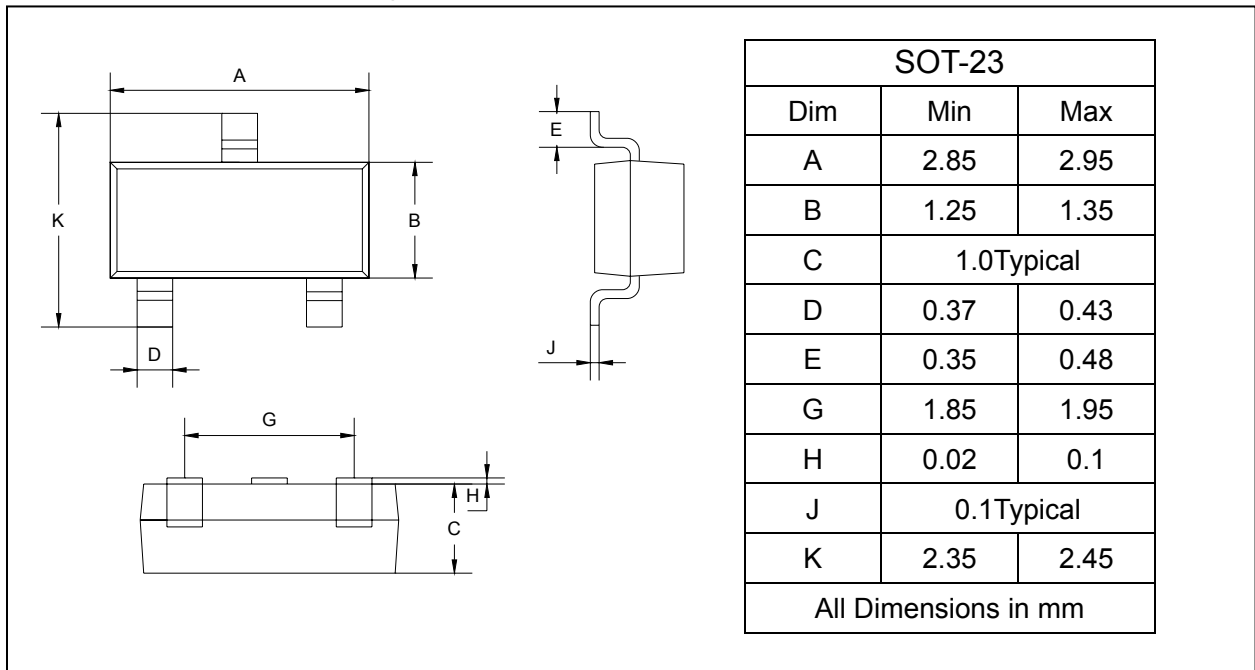


Figure 4. "On" Voltages

## PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



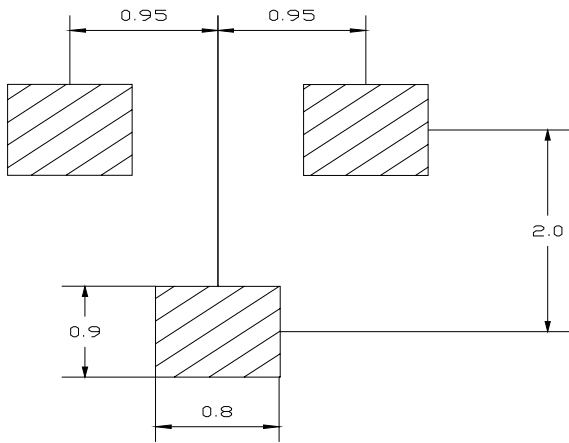
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## NPN General Purpose Amplifier

## MMBT5550

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### SOLDERING FOOTPRINT



Unit: mm

### PACKAGE INFORMATION

Device	Package	Shipping
MMBT5550	SOT-23	3000/Tape&Reel