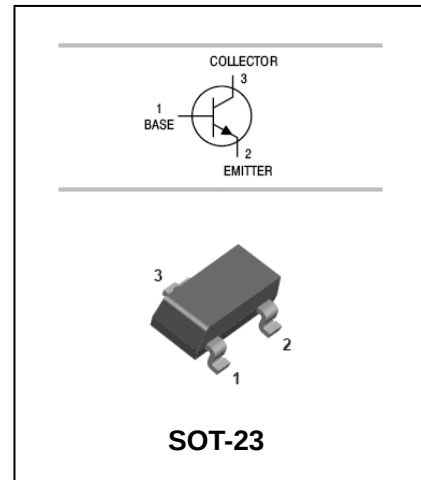


NPN General Purpose Amplifier**MMBT5550****FEATURES**

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



Lead-free

**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	300	mW
$R_{\theta JA}$	Thermal resistance,Junction to ambient	417	°C/W
T_j, T_{stg}	Junction and Storage Temperature	-55 to+150	°C

NPN General Purpose Amplifier

MMBT5550

ELECTRICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

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

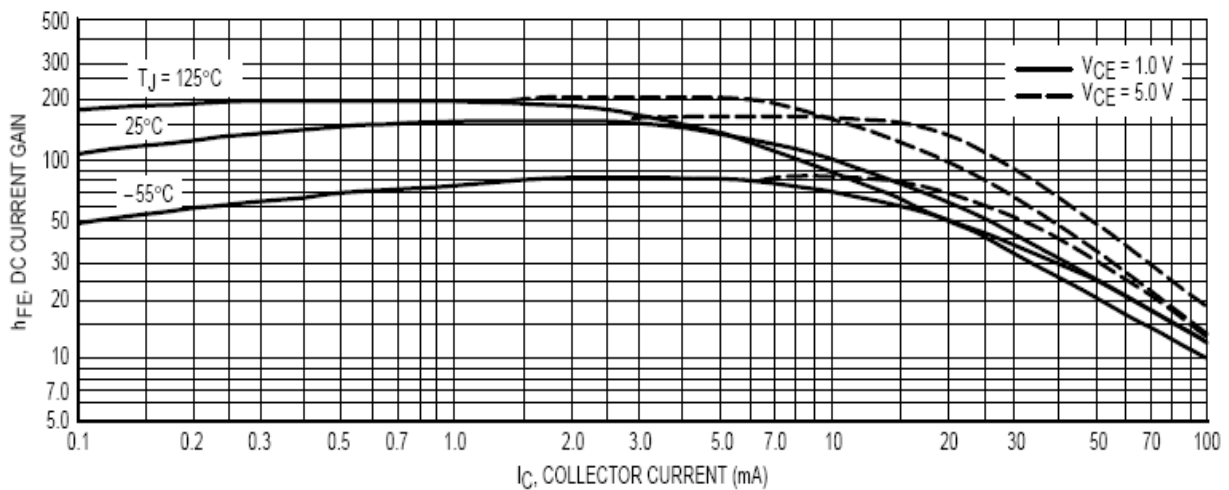
TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

Figure 1. DC Current Gain

NPN General Purpose Amplifier

MMBT5550

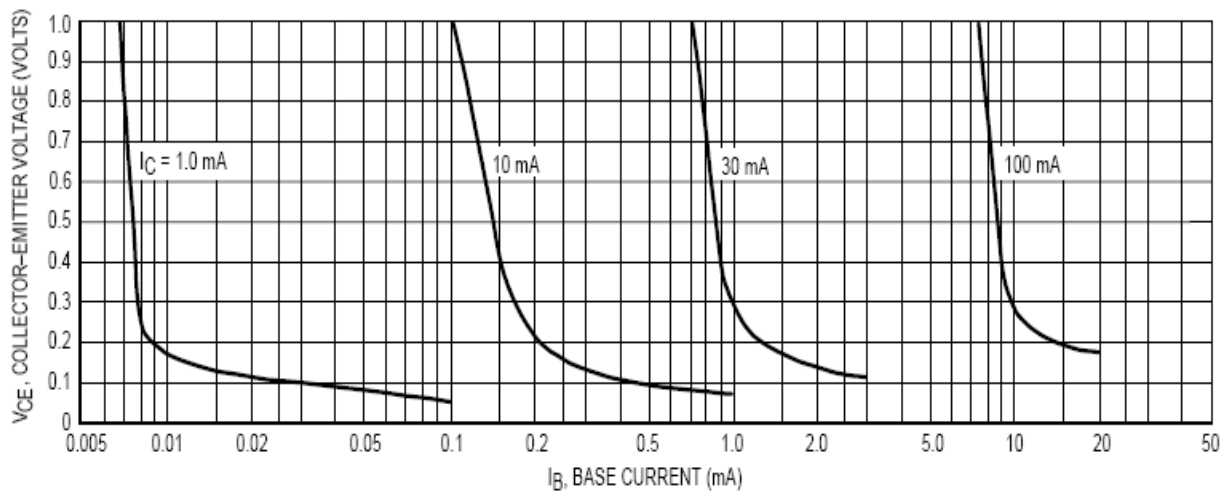


Figure 2. Collector Saturation Region

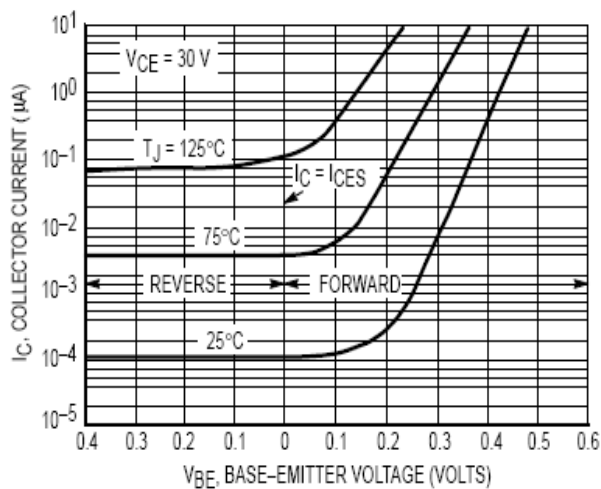


Figure 3. Collector Cut-Off Region

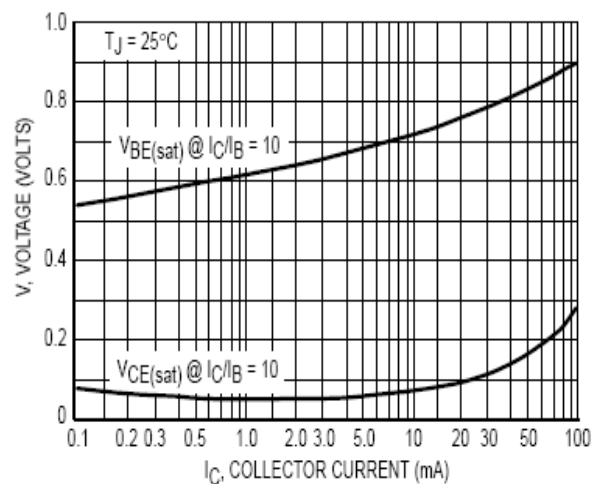


Figure 4. "On" Voltages

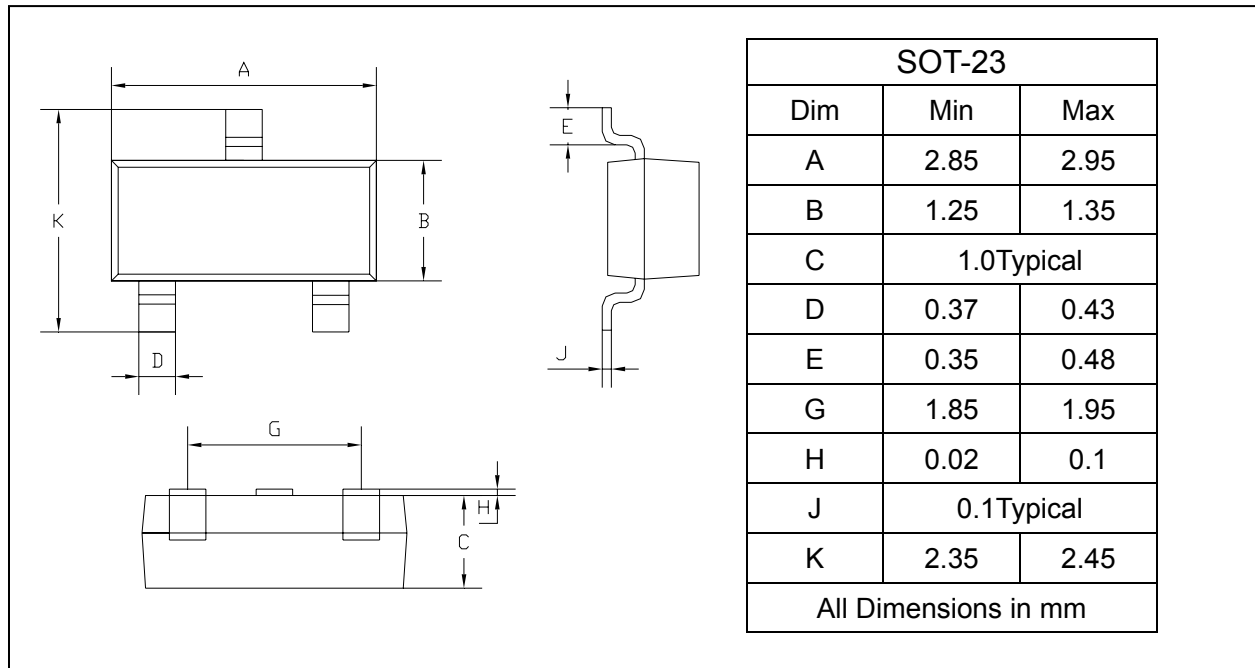
NPN General Purpose Amplifier

MMBT5550

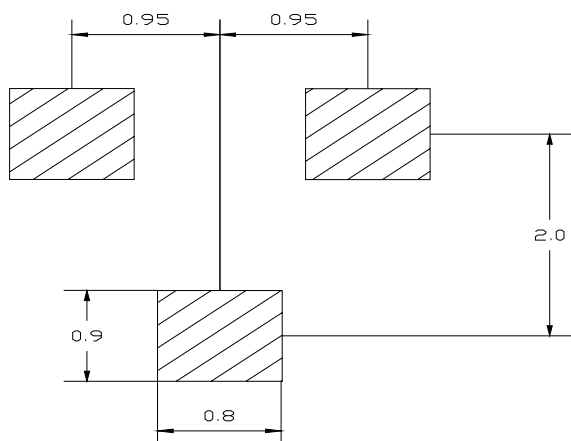
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



Unit: mm

PACKAGE INFORMATION

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