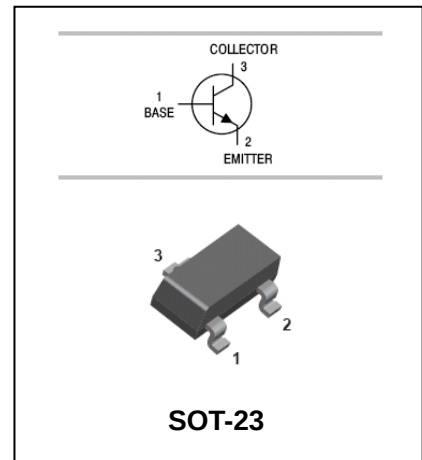


NPN General Purpose Amplifier**MMBT5550****FEATURES**

- 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	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}	$V_{CE}=5.0V$ $I_C=1.0mA$ $V_{CE}=5.0V$ $I_C=10mA$ $V_{CE}=5.0V$ $I_C=50mA$	60 60 20	250	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=10mA$ $I_B=1.0mA$ $I_C=50mA$ $I_B=5.0mA$		0.15 0.25	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=10mA$ $I_B=1.0mA$ $I_C=50mA$ $I_B=5.0mA$		1.0 1.2	V

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

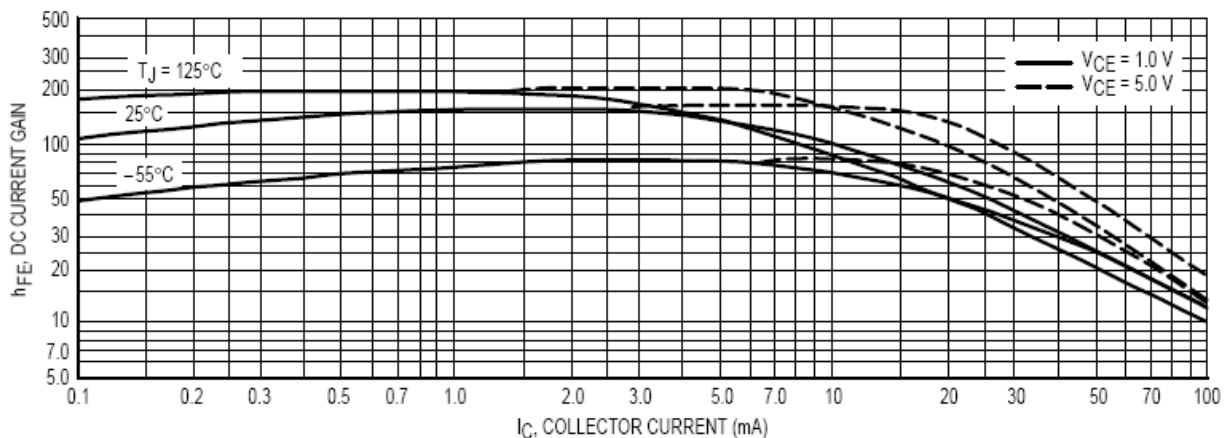


Figure 1. DC Current Gain

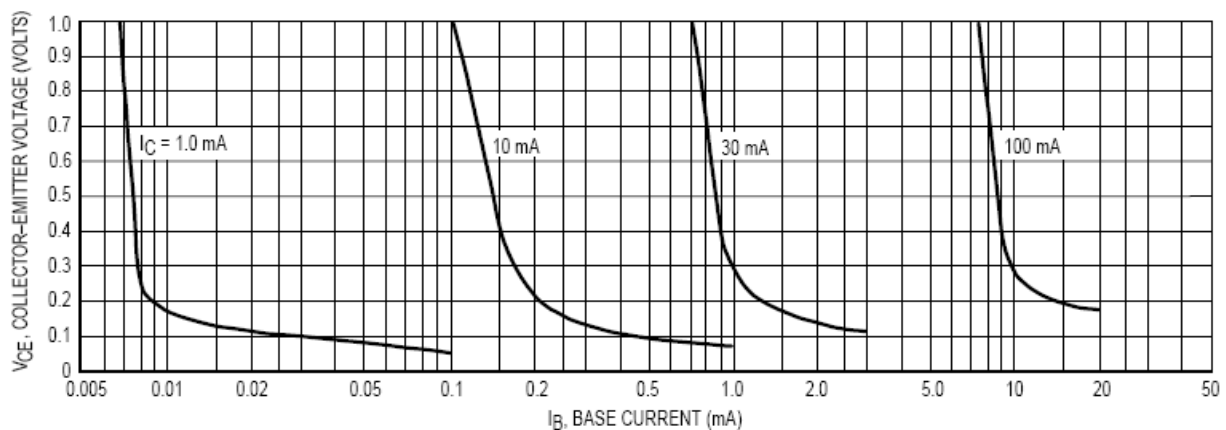


Figure 2. Collector Saturation Region

NPN General Purpose Amplifier

MMBT5550

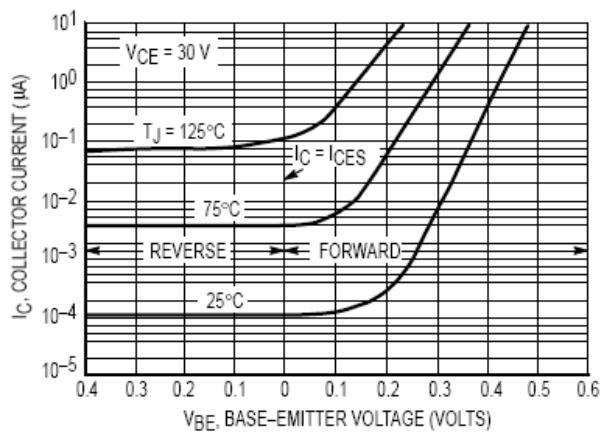


Figure 3. Collector Cut-Off Region

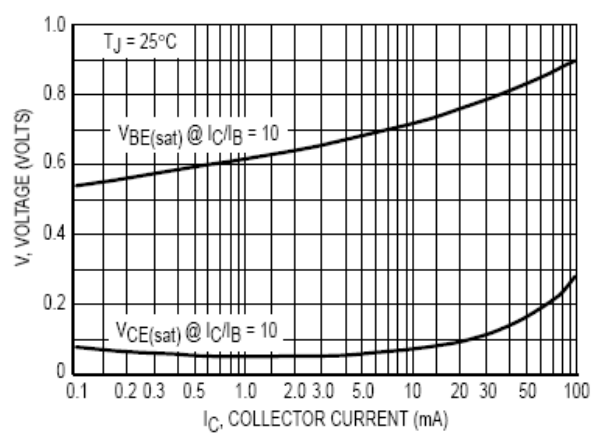


Figure 4. "On" Voltages

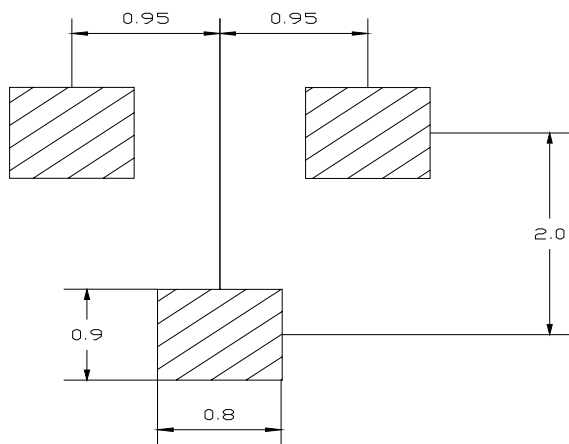
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23

SOT-23		
Dim	Min	Max
A	2.85	2.95
B	1.25	1.35
C	1.0Typical	
D	0.37	0.43
E	0.35	0.48
G	1.85	1.95
H	0.02	0.1
J	0.1Typical	
K	2.35	2.45
All Dimensions in mm		

NPN General Purpose Amplifier**MMBT5550**

SOLDERING FOOTPRINT

Unit: mm

PACKAGE INFORMATION

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