

NPN General Purpose Amplifier

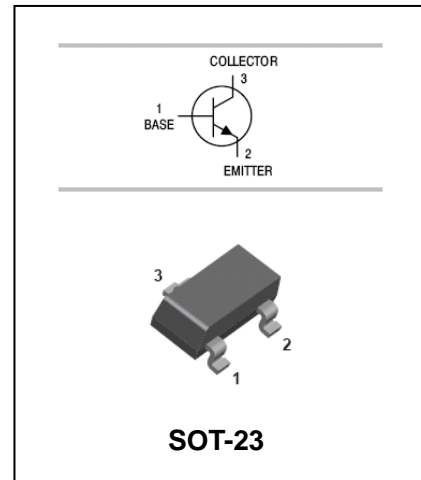
MMBT5550

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

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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

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 @ Ta=25°C unless otherwise specified

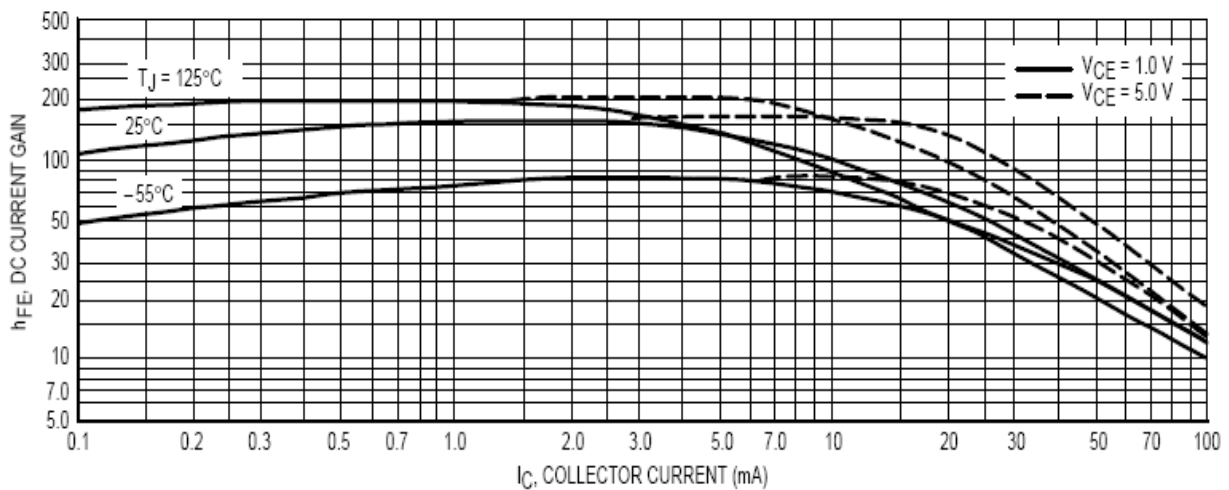


Figure 1. DC Current Gain

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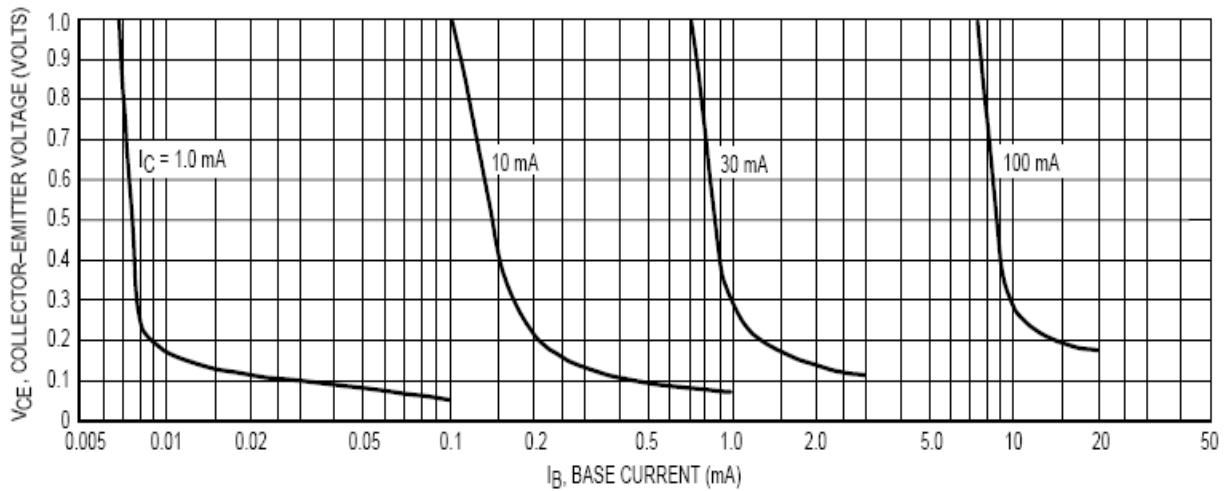


Figure 2. Collector Saturation Region

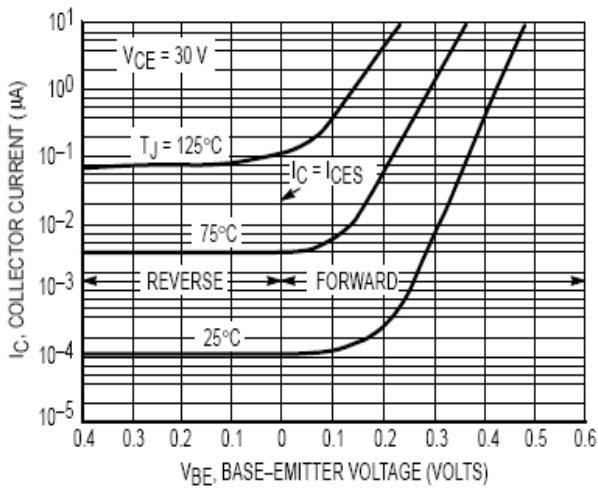


Figure 3. Collector Cut-Off Region

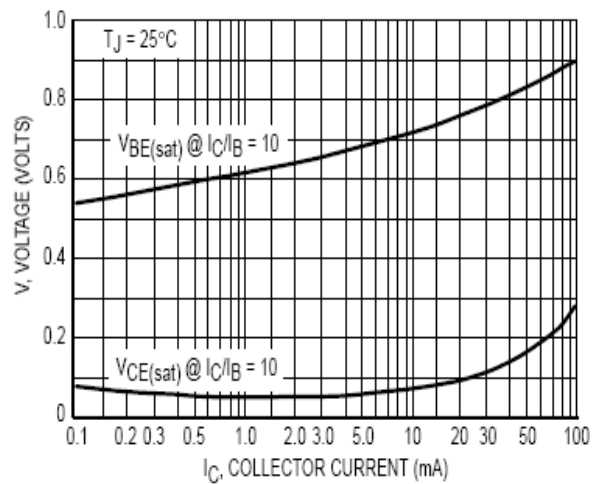


Figure 4. "On" Voltages

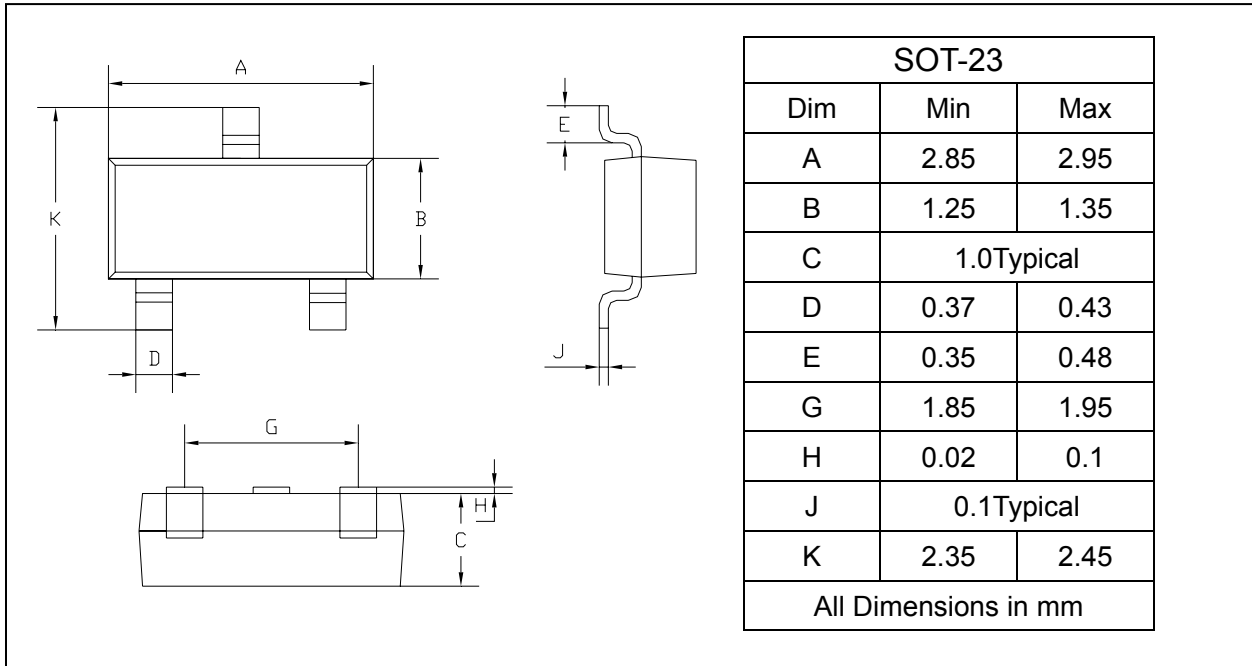
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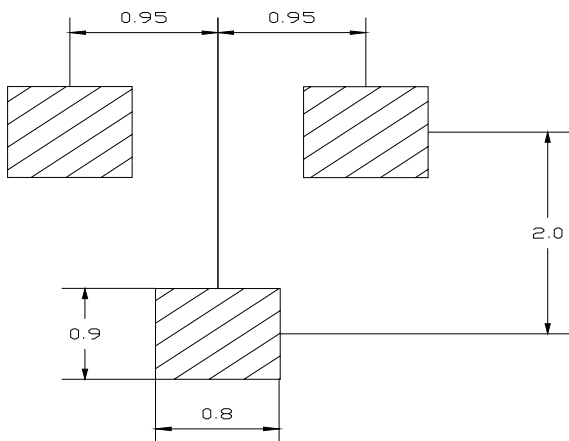
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



Unit: mm

PACKAGE INFORMATION

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

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