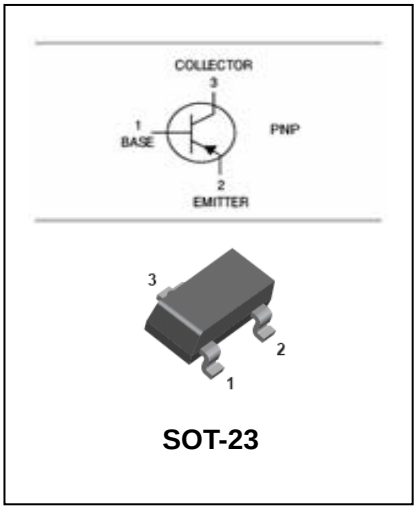
PNP High Voltage Amplifier MMBT6520

FEATURES

- High Voltage Tramsistor
- PNP Silicon

Lead-free



SOT-23

ORDERING INFORMATION

Type No.	Marking	Package Code
MMBT6520	2Z	SOT-23

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	Parameter	Value	UNIT
V_{CBO}	Collector-base voltage	-350	V
V_{CEO}	Collector-emitter voltage	-350	V
V_{EBO}	Emitter-base voltage	-5	V
I_C	Collector current (DC)	-0.5	A
I_B	Base current	-0.25	A
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℃ unless otherwise specified

Symbol	Parameter	Test conditions	MIN.	MAX.	UNIT
$V_{(BR)CBO}$	Collector-base breakdown voltage	I_C=-100μA,I_E=0	-350		
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=-1mA,I_B=0	-350		
$V_{(BR)EBO}$	Emitter-base breakdown voltage	I_E=-10μA,I_C=0	-5		
I_{CBO}	Collector cut-off current	I_E = 0; V_{CB} = -250V	-	-50	nA
I_{EBO}	Emitter cut-off current	I_C = 0; V_{EB} = -4V	-	-50	nA
h_{FE}	DC current gain	V_{CE} = -10V; I_C= -1mA V_{CE} = -10V;I_C= -10mA V_{CE} = -10V;I_C= -30mA V_{CE} = -10V;I_C= -50mA V_{CE} = -10V;I_C= -100mA	20 30 30 20 15	 200 200 	
$V_{CE(sat)}$	Collector-emitter saturation voltage	I_C = -10mA; I_B = -1mA I_C = -20mA; I_B = -2mA I_C = -30mA; I_B = -3mA I_C = -50mA; I_B = -5mA	-	-0.3 -0.35 -0.5 -1	V
$V_{BE(sat)}$	Base-emitter saturation voltage	I_C = -10mA; I_B = -1mA I_C = -20mA; I_B = -2mA I_C = -30mA; I_B = -3mA	-	-0.75 0.85 0.9	V
$V_{BE(on)}$	Base-emitter on voltage	I_C=-100mA,V_{CE}=-10V	-	-2	V
C_{cb}	Collector-Base capacitance	V_{CB}=-20V,f=1.0MHz	-	6.0	pF
C_{eb}	Emitter-Base capacitance	V_{EB}=-0.5V,f=1.0MHz	-	100	pF
f_T	Transition frequency	I_C = -10mA; V_{CE} = -20V; f = 20MHz	40	200	MHz

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TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

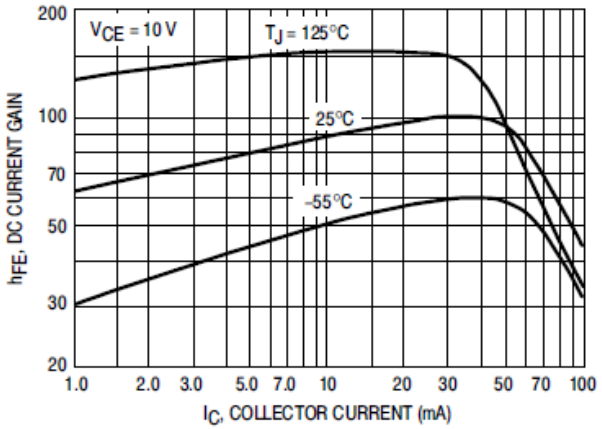

Figure 1. DC Current Gain

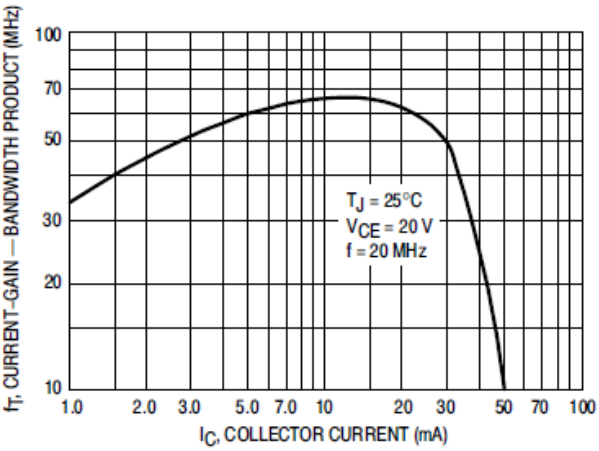

Figure 2. Current–Gain — Bandwidth Product

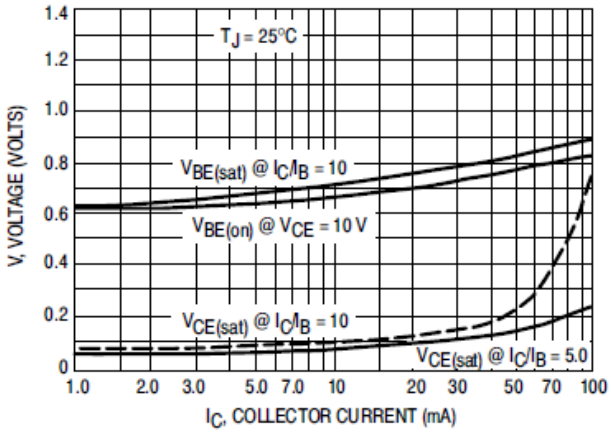

Figure 3. “On” Voltages

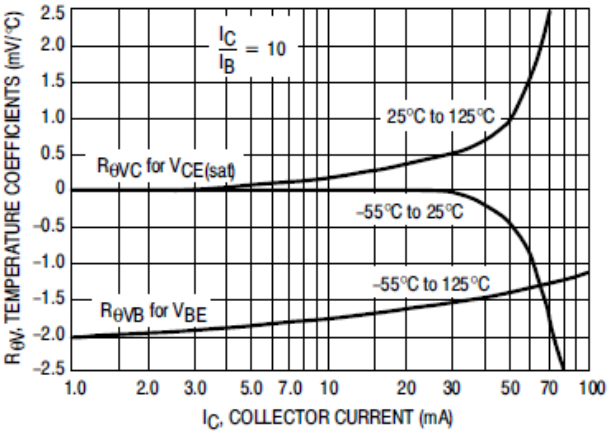

Figure 4. Temperature Coefficients

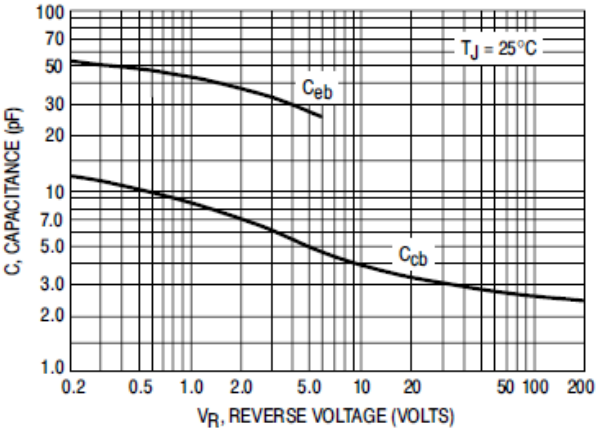

Figure 5. Capacitance

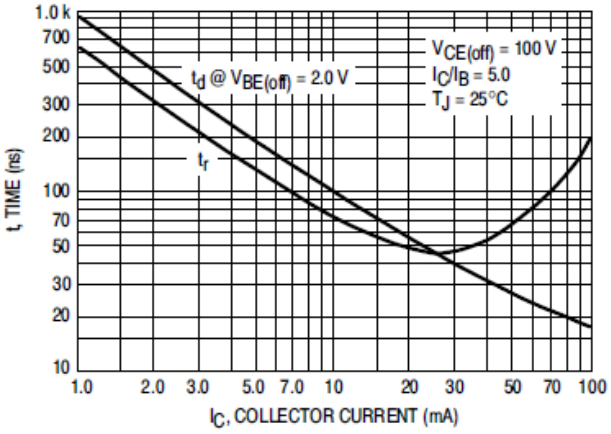

Figure 6. Turn–On Time

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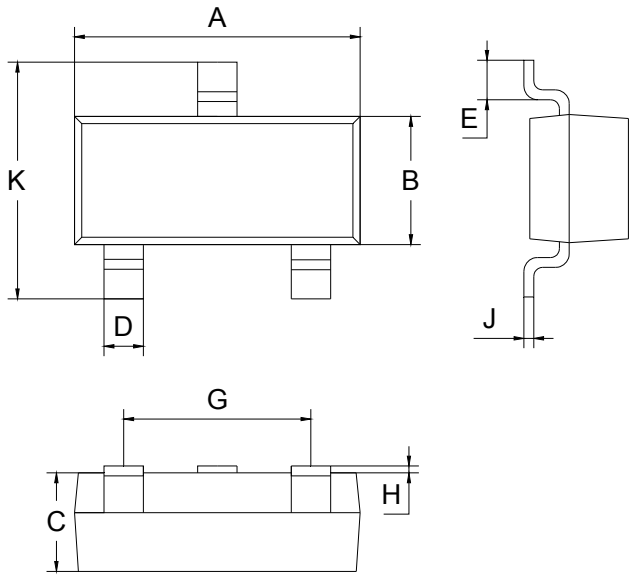
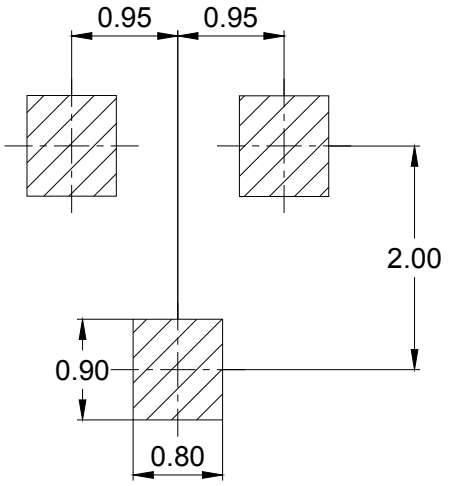
PACKAGE OUTLINE

Plastic surface mounted package SOT-23



SOT-23		
Dim	Min	Max
A	2.70	3.10
B	1.10	1.50
C	1.0 Typical	
D	0.4 Typical	
E	0.35	0.48
G	1.80	2.00
H	0.02	0.1
J	0.1 Typical	
K	2.20	2.60
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
MMBT6520	SOT-23	3000/Tape&Reel