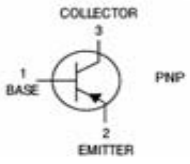
PNP General Purpose Transistor

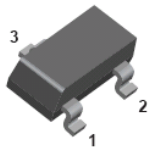
FEATURES

- Epitaxial planar die construction.
- Complementary NPN type available (MMBT4401).
- Also available in lead free version.
- Ideal for medium power amplification and switching.

APPLICATIONS

- Ideal for medium power amplification and switching





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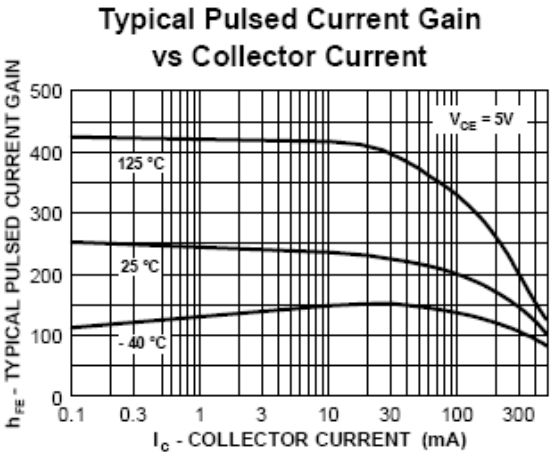
MAXIMUM RATING @ Ta=25℃ unless otherwise specified

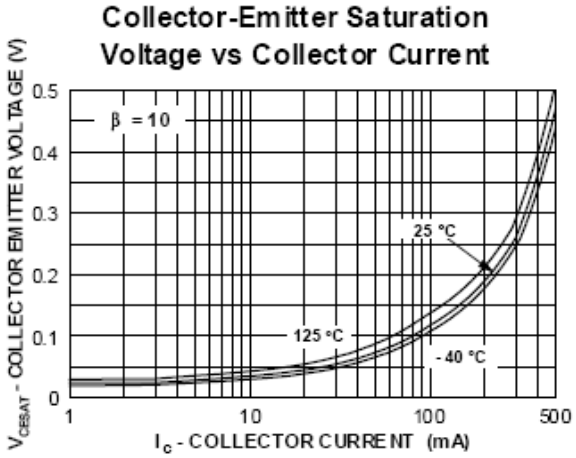
Symbol	Parameter	Value	UNIT
V_{CBO}	collector-base voltage	-40	V
V_{CEO}	collector-emitter voltage	-40	V
V_{EBO}	emitter-base voltage	-5	V
I_C	collector current (DC)	-0.6	A
P_C	Collector dissipation	0.35	W
T_j , T_{stg}	junction and storage temperature	-55-150	°C

ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

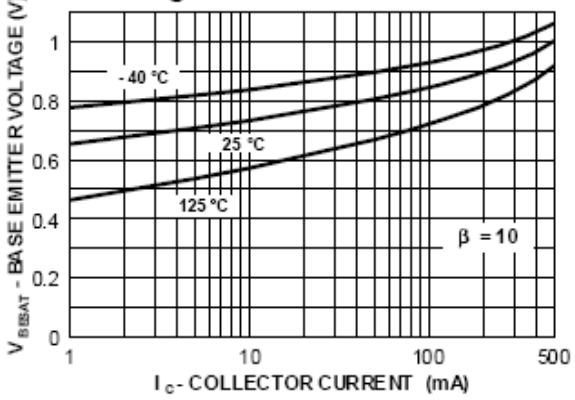
Symbol	Parameter	Test conditions	MIN.	MAX.	UNIT
$V_{(BR)CBO}$	Collector-base breakdown voltage	I_C=-100μA,I_E=0	-40		
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=-1mA,I_B=0	-40		
$V_{(BR)EBO}$	Emitter-base breakdown voltage	I_E=-100μA,I_C=0	-5		
I_{CBO}	collector cut-off current	I_E = 0; V_{CB} = -35V	-	-0.1	μA
I_{CEO}	collector cut-off current	I_E = 0; V_{CB} = -35V		-0.1	μA
I_{EBO}	emitter cut-off current	I_C = 0; V_{EB} = -4V	-	-0.1	μA
h_{FE}	DC current gain	V_{CE} = -1V; I_C= -0.1mA V_{CE} = -1V;I_C = -1mA V_{CE} = -1V;I_C = -10mA V_{CE} = -2V;I_C = -150mA V_{CE} = -2V;I_C = -500mA	30 60 100 100 20	300	
$V_{CE(sat)}$	collector-emitter saturation voltage	I_C = -150mA ,I_B = -15mA I_C = -500mA ,I_B = -50mA	-	-0.4 -0.75	V
$V_{BE(sat)}$	base-emitter saturation voltage	I_C = -150mA; I_B = -15mA I_C = -500mA; I_B = -50mA	-0.75	-0.95 -1.3	V
f_T	transition frequency	I_C = -20mA; V_{CE}= -10V; f =100MHz	200	-	MHz

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

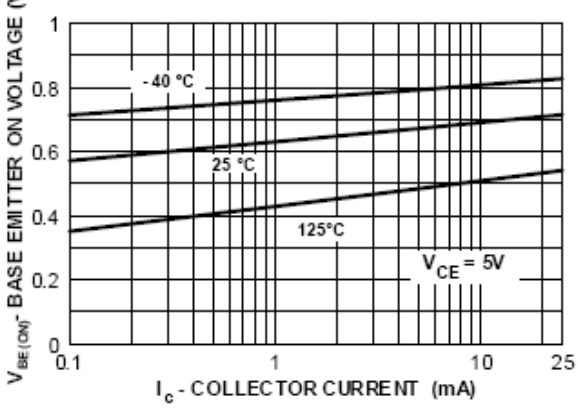




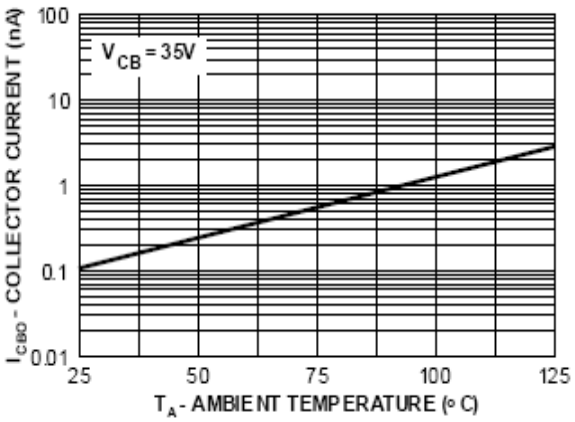
Base-Emitter Saturation Voltage vs Collector Current



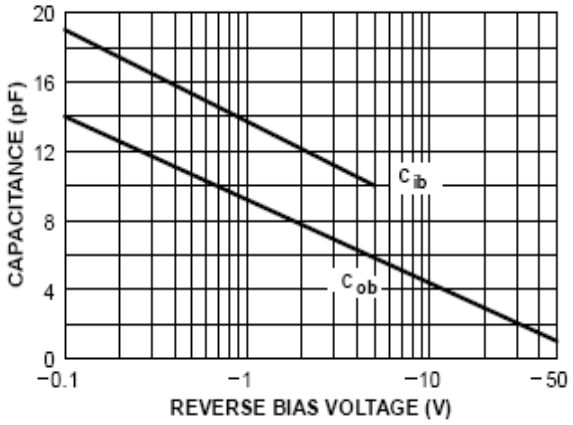
Base Emitter ON Voltage vs Collector Current



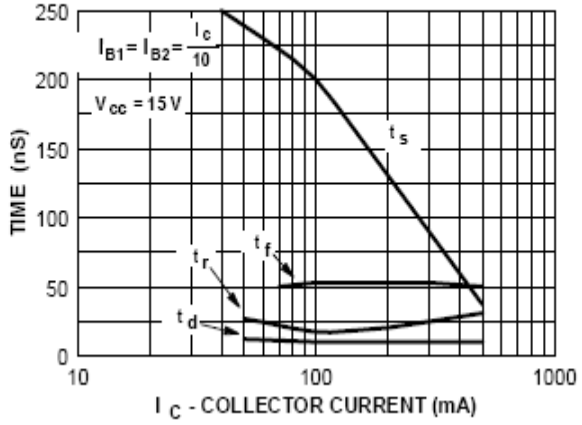
Collector-Cutoff Current vs Ambient Temperature



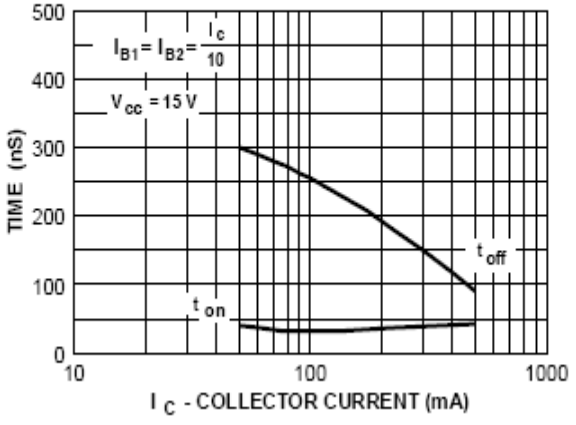
Input and Output Capacitance vs Reverse Bias Voltage

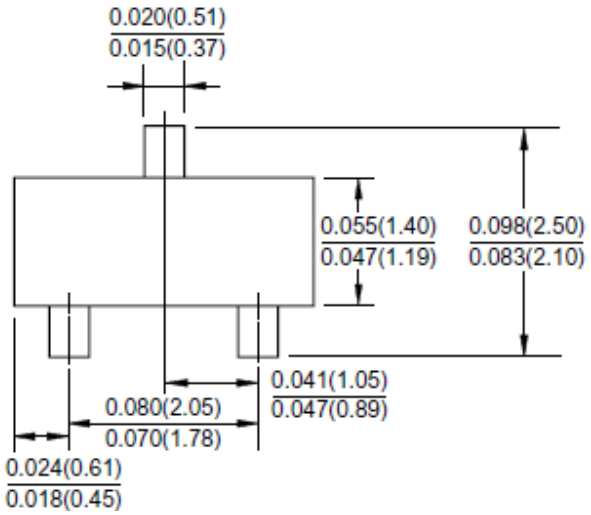
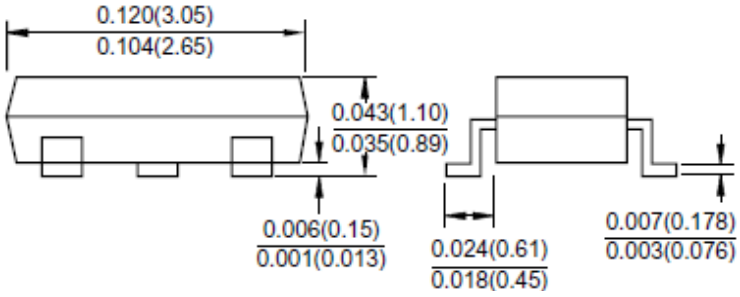


Switching Times vs Collector Current



Turn On and Turn Off Times vs Collector Current



Dimensions in inch (mm)

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