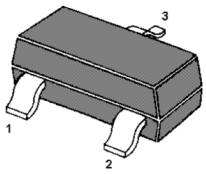
FMMT489

NPN Silicon Epitaxial Planar Transistor

For switching and amplifier applications. Especially suitable for AF-driver stages and low power output stages.



1. Base 2. Emitter 3. Collector
SOT-23 Plastic Package

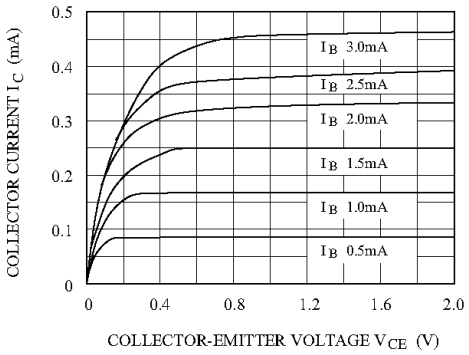
Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	40	V
Collector Emitter Voltage	V_{CEO}	25	V
Emitter Base Voltage	V_{EBO}	6	V
Collector Current	I_C	1	A
Power Dissipation	P_{tot}	350	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 55 to + 150	°C

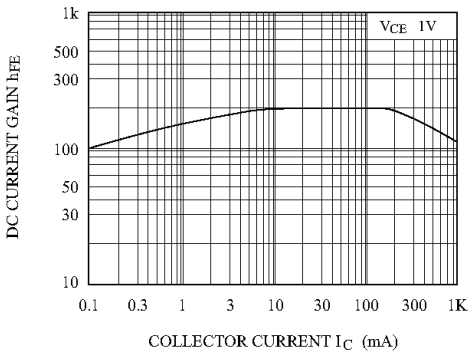
Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain at V_{CE} = 1 V, I_C = 100 mA at V_{CE} = 1 V, I_C = 800 mA	h_{FE}	200	400 -	- - -
Collector Base Cutoff Current at V_{CB} = 35 V	I_{CBO}	-	100	nA
Emitter Base Cutoff Current at V_{EB} = 6 V	I_{EBO}	-	100	nA
Collector Base Breakdown Voltage at I_C = 100 µA	$V_{(BR)CBO}$	40	-	V
Collector Emitter Breakdown Voltage at I_C = 2 mA	$V_{(BR)CEO}$	25	-	V
Emitter Base Breakdown Voltage at I_E = 100 µA	$V_{(BR)EBO}$	6	-	V
Collector Emitter Saturation Voltage at I_C = 800 mA, I_B = 80 mA	$V_{CE(sat)}$	-	0.5	V
Base Emitter Saturation Voltage at I_C = 800 mA, I_B = 80 mA	$V_{BE(sat)}$	-	1.2	V
Base Emitter Voltage at V_{CE} = 1 V, I_C = 10 mA	$V_{BE(on)}$	-	1	V
Gain Bandwidth Product at V_{CE} = 10 V, I_C = 50 mA	f_T	120	-	MHz

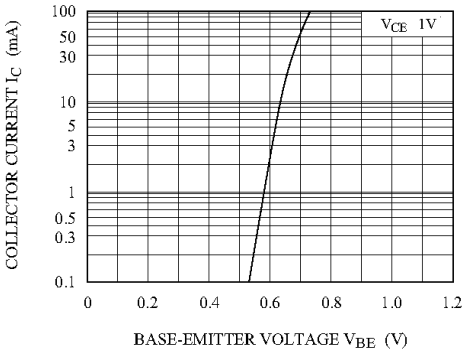
I_C - V_{CE}



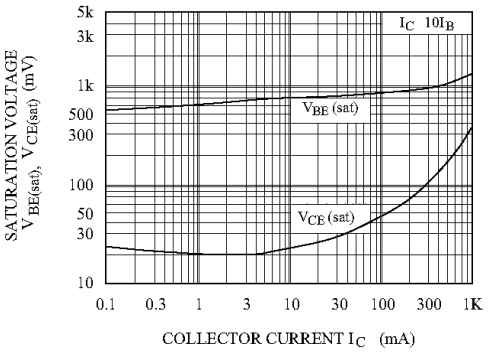
h_{FE} - I_C



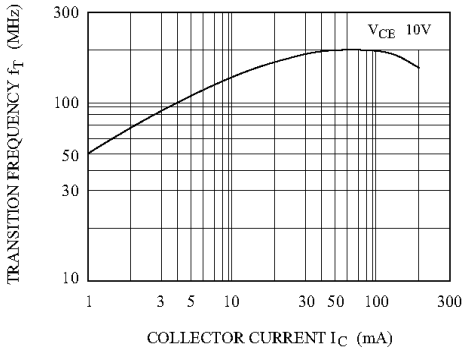
I_C - V_{BE}



$V_{BE(sat)}$, $V_{CE(sat)}$ - I_C



f_T - I_C



C_{ob} - V_{CB}

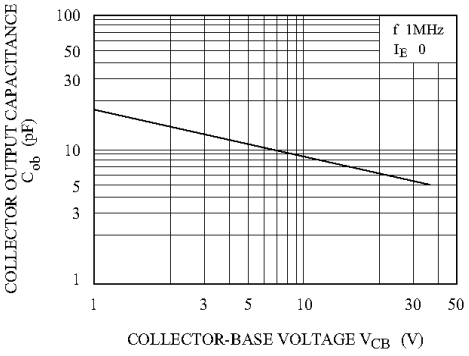
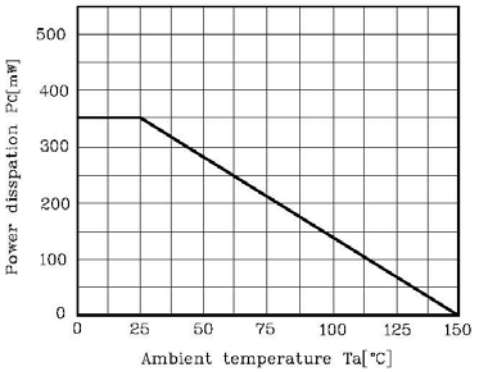


Fig. 1 P_C-T_a



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