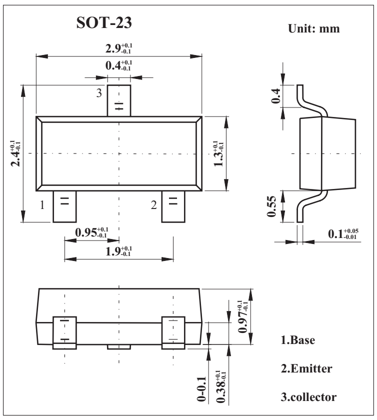
SMD Type Transistors

PNP Transistors

MMBT5401



■ Features

- High Voltage Transistors
- Pb-Free Packages are Available

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-160	V
Collector-emitter voltage	V_{CEO}	-150	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current-continuous	I_C	-0.6	A
Collector Power Dissipation	Pc	300	mW
Junction and storage temperature	T_J, T_{stg}	-55 to +150	℃

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CBO}	I_C = -100 μA, I_E = 0	-160			V
Collector-emitter breakdown voltage *	V_{CEO}	I_C =- 1.0 mA, I_B = 0	-150			V
Emitter-base breakdown voltage	V_{EBO}	I_E = -10 μA, I_C = 0	-5			V
Collector cutoff current	I_{CBO}	V_{CB} =- 120 V, I_E = 0			-0.1	μA
Emitter cutoff current	I_{EBO}	V_{EB} = -4.0 V, I_C = 0			-0.1	μA
DC current gain *	h_{FE}	I_C = -1.0 mA, V_{CE} = -5 V	80			
		I_C = -10 mA, V_{CE} = -5 V	100		300	
		I_C = -50 mA, V_{CE} = -5 V	50			
Collector-emitter saturation voltage *	$V_{CE(sat)}$	I_C = -50 mA, I_B = -5.0 mA			-0.5	V
Base-emitter saturation voltage *	$V_{BE(sat)}$	I_C = -50 mA, I_B = -5.0 mA			-1.0	V
Transiston frequency	f_T	V_{CE}=-5V,I_C=-10mA,f=30MHz	100			MHz

* Pulse Test: Pulse Width = 300 μs, Duty Cycle=2.0%.

■ Marking

Marking	2L

■ Typical Characteristics

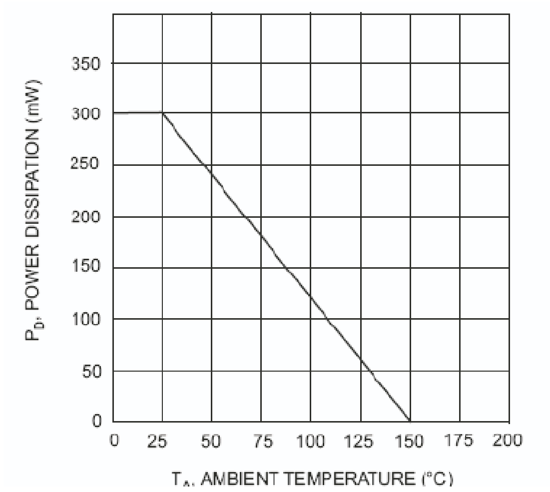


Fig.1 Max Power Dissipation vs. Ambient Temperature

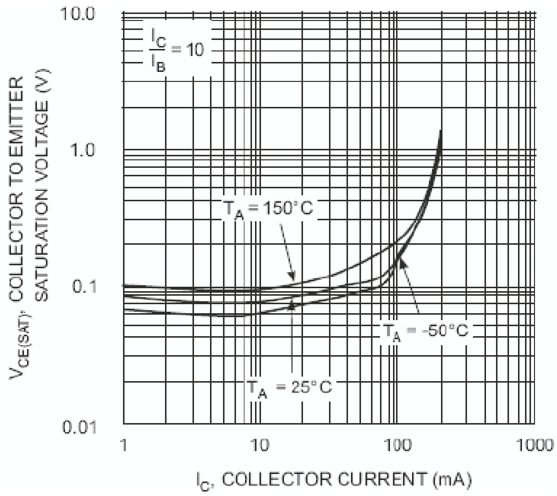


Fig.2 Collector Emitter Saturation Voltage vs.Collector Current

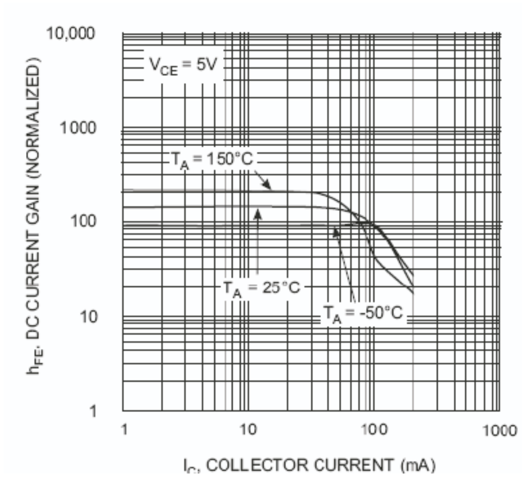


Fig.3 DC Current Gain vs. Collector Current

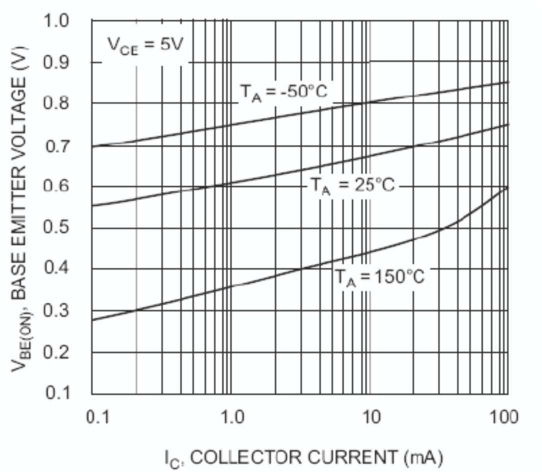


Fig.4 Base Emitter Voltage vs.Collector Current

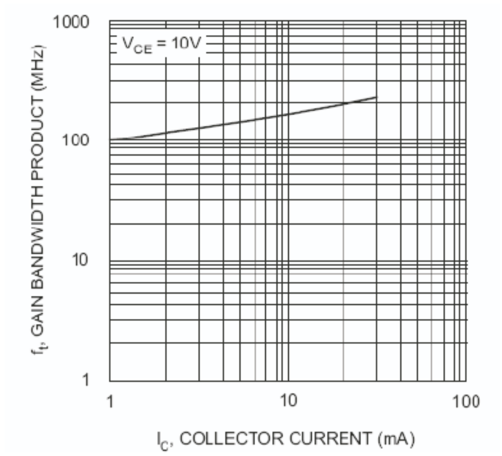


Fig.5 Gain Bandwidth Product vs. Collector Current