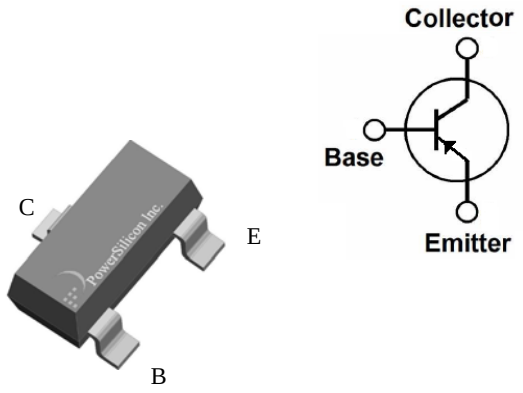
GENERAL PURPOSE TRANSISTORS PNP Silicon



FEATURES

- High DC Current Gain
- Low Collector-Emitter Saturation Voltage

MECHANICAL DATA

- Available in SOT-23Package
- Solderability: MIL-STD-202, Method 208
- PB Free Products Are Available: 98.5% SN Above Can Meet RoHS Environment Substance Directive Request

ORDERING INFORMATION

PART NUMBER	PACKAGE	SHIPPING	MARKING CODE
MMBT5401□-T3	SOT-23	Tape Reel	2L

Notes:

1. □: none is for Lead Free package;
   "G" is for Halogen Free package.

THERMAL DATA

PARAMETER	SYMBOL	VALUES	UNIT
Thermal Resistance, Junction-to-Ambient	$R_{\theta JA}$	417	°C/W

ABSOLUTE MAXIMUM RATINGS

T_A = 25°C, unless otherwise specified. (Note 4)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Emitter Voltage	V_{CEO}	-150	V
Collector-Base Voltage	V_{CBO}	-160	V
Emitter-Base Voltage	V_{EBO}	-5.0	V
Collector Current	I_C	-0.6	A
Collector Power Dissipation	P_C	300	mW
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_{stg}	- 55 ~ +150	°C

Notes:

2. Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

ELECTRICAL CHARACTERISTICS

T_A = 25°C, unless otherwise noted.

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
OFF CHARACTERISTICS						
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C = -1mA, I_B = 0	-150			V
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C = -100μA, I_E = 0	-160			V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E = -10μA, I_C = 0	-5.0			V
Collector Cut-off Current	I_{CBO}	V_{CB} = -120V, I_E = 0			-0.05	μA
Emitter Cut-off Current	I_{EBO}	V_{EB} = -3V, I_C = 0			-0.05	μA
ON CHARACTERISTICS						
Dc Current Gain	$h_{FE(1)}$	V_{CE} = -5V, I_C = -1mA	80			-
	$h_{FE(2)}$	V_{CE} = -5V, I_C = -10mA	100		200	
	$h_{FE(3)}$	V_{CE} = -5V, I_C = -50mA	50			
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = -50mA, I_B = -5mA			-0.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C = -50mA, I_B = -5mA			-1.0	V
OFF CHARACTERISTICS						
Collector-Emitter Breakdown Voltage	f_T	I_C = -10mA, V_{CE} = -5V, f = 100MH_Z	100			MH_Z

TYPICAL PERFORMANCE CHARACTERISTICS

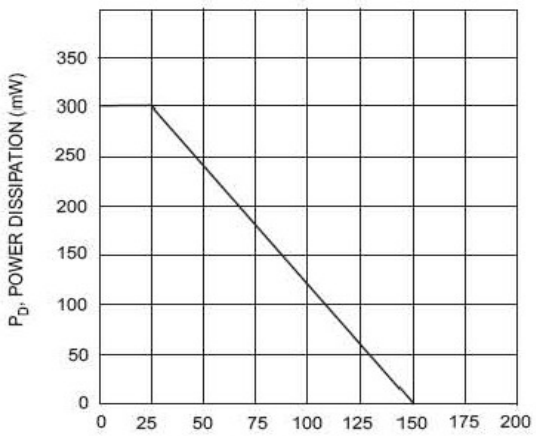


Fig. 1, Max Power Dissipation vs Ambient Temperature

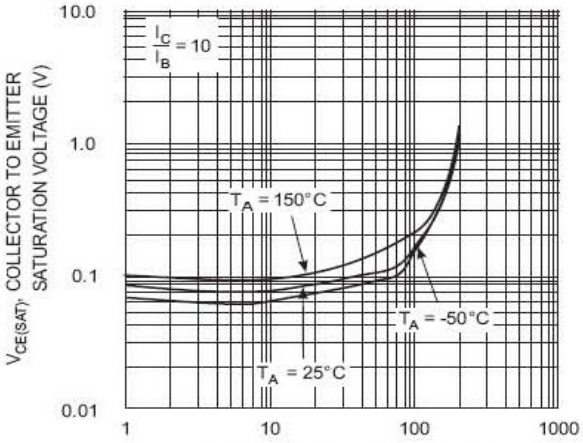


Fig. 2, Collector Emitter Saturation Voltage vs. Collector Current

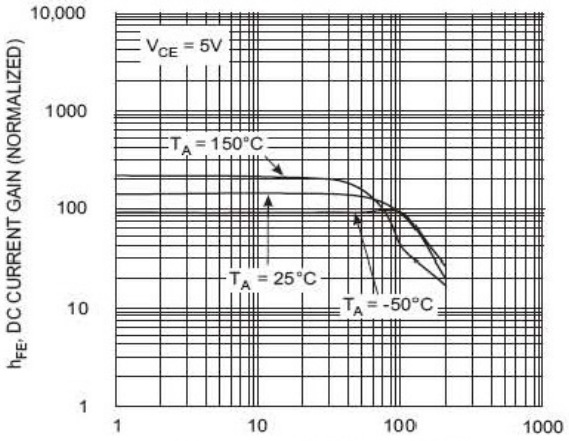


Fig. 3, DC Current Gain vs. Collector Current

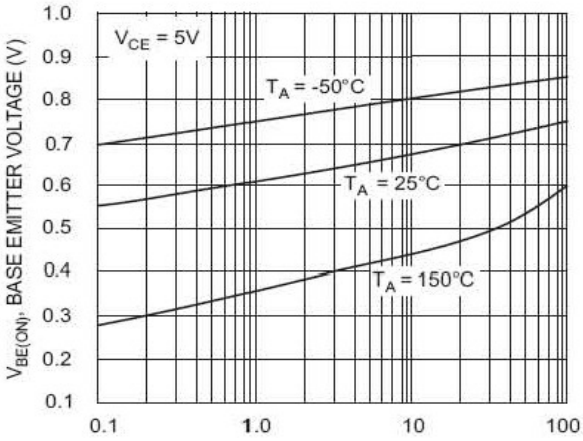


Fig. 4, Base Emitter Voltage vs. Collector Current

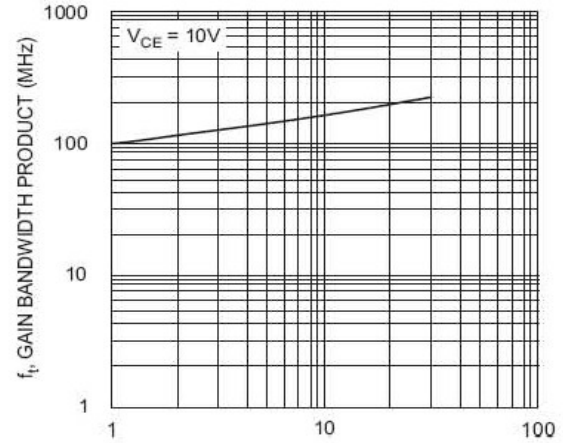


Fig. 5, Gain Bandwidth Product vs Collector Current

PHYSICAL DIMENSION

Unit：Inch(Millimeter)

SOT-23