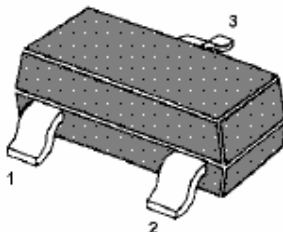


Kingtronics®**MMBT3906**

PNP Silicon General Purpose Transistors

For switching and amplifier applications

As complementary types the NPN transistors
MMBT3904 is recommended.



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

Absolute Maximum Ratings (Ta = 25°C)

PARAMETER	SYMBOL	VALUE	UNIT
Collector Base Voltage	-VCBO	40	V
Collector Emitter Voltage	-VCEO	40	V
Emitter Base Voltage	-VEBO	6	V
Collector Current	-IC	200	mA
Power Dissipation	Ptot	350	mW
Junction Temperature	Tj	150	°C
Storage Temperature Range	Tstg	- 55 to + 150	°C

Characteristics at Ta = 25°C

PARAMETER	SYMBOL	MIN.	MAX.	UNIT
DC Current Gain				
at -VCE = 1 V, -Ic = 0.1 mA		60	-	
at -VCE = 1 V, -Ic = 1 mA		80	-	
at -VCE = 1 V, -Ic = 10 mA	hFE	100	300	-
at -VCE = 1 V, -Ic = 50 mA		60	-	
at -VCE = 1 V, -Ic = 100 mA		30	-	
Collector Base Cutoff Current				
at -VCB = 30 V	-ICBO	-	50	nA
Emitter Base Cutoff Current				
at -VEB = 6 V	-IEBO	-	50	nA
Collector Base Breakdown Voltage				
at -Ic = 10 µA	-V(BR)CBO	40	-	V
Collector Emitter Breakdown Voltage				
at -Ic = 1 mA	-V(BR)CEO	40	-	V
Emitter Base Breakdown Voltage				
at -IE = 10 µA	-V(BR)EBO	6	-	V
Collector Emitter Saturation Voltage				
at -Ic = 10 mA, -IB = 1 mA			0.25	V
at -Ic = 50 mA, -IB = 5 mA	-VCE(sat)		0.4	
Base Emitter Saturation Voltage				
at -Ic = 10 mA, -IB = 1 mA		0.65	0.85	V
at -Ic = 50 mA, -IB = 5 mA	-VBE(sat)		0.95	
Current Gain Bandwidth Product				
at -VCE = 20 V, -Ic = 10 mA, f = 100 MHz	fT	250	-	MHz
Output Capacitance				
at -VCB = 5 V, IE = 0, f = 1 MHz	Cobo	-	4.5	pF
Delay Time				
at -VCC = 3 V, -VBE = 0.5 V, -Ic = 10 mA, -IB1 = 1 mA	td	-	35	ns
Rise Time				
at -VCC = 3 V, -VBE = 0.5 V, -Ic = 10 mA, -IB1 = 1 mA	tr	-	35	ns
Storage Time				
at -VCC = 3 V, -Ic = 10 mA, -IB1 = IB2 = 1 mA	ts	-	225	ns
Fall Time				
at -VCC = 3 V, -Ic = 10 mA, -IB1 = IB2 = 1 mA	tf	-	75	ns

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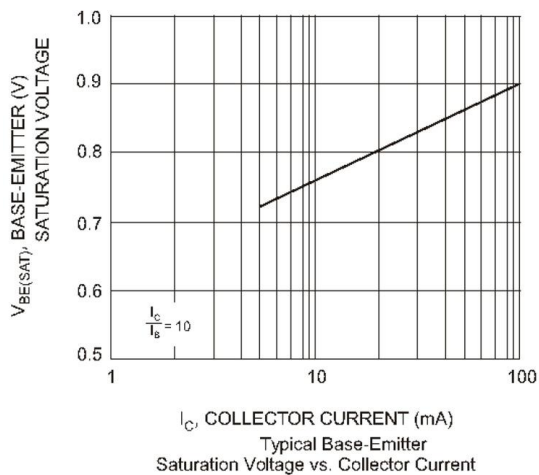
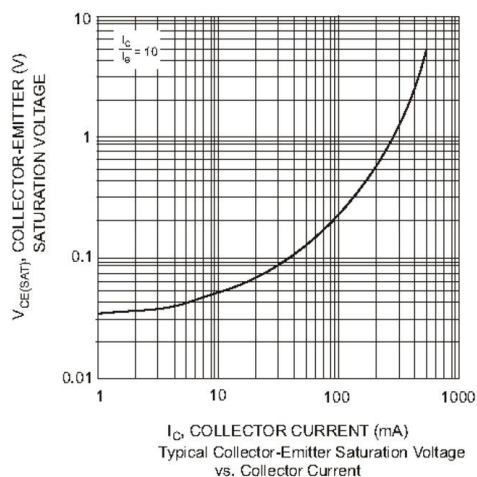
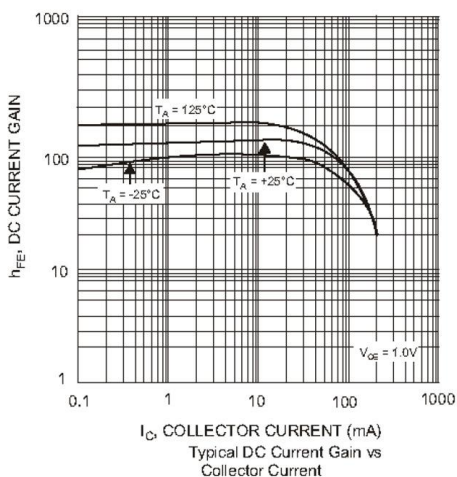
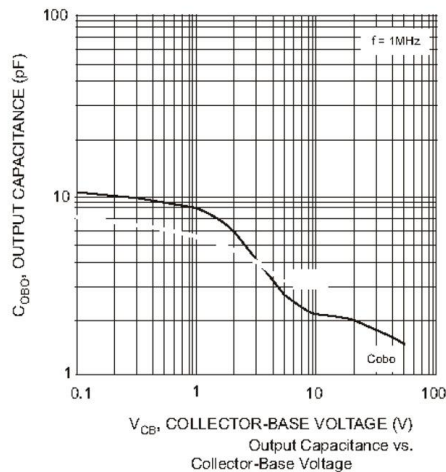
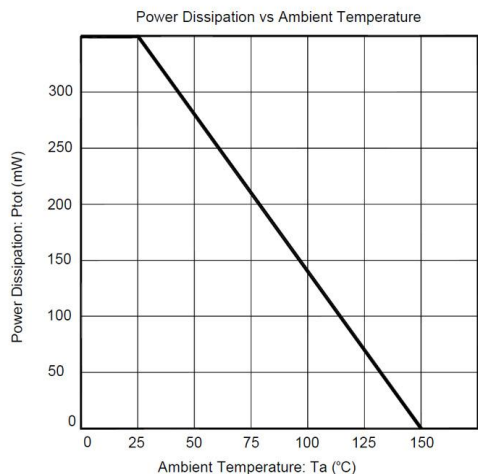
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RATINGS AND CHARACTERISTIC CURVES MMBT3906



Note: Specifications are subject to change without notice.

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