



**SOT-23 Plastic-Encapsulate Transistors**

**MMBTA13** TRANSISTOR (NPN)

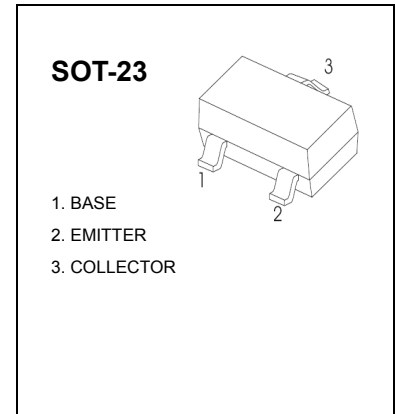
**FEATURES**

Darlington Amplifier

**Marking** : K2D

**MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted)**

Symbol	Parameter	Value	Unit
V <sub>CBO</sub>	Collector-Base Voltage	30	V
V <sub>CEO</sub>	Collector-Emitter Voltage	30	V
V <sub>EBO</sub>	Emitter-Base Voltage	10	V
I <sub>C</sub>	Collector Current -Continuous	0.3	A
P <sub>C</sub>	Collector Power Dissipation	300	mW
R <sub>θJA</sub>	Thermal Resistance from Junction to Ambient	417	°C/W
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature	-55~+150	°C



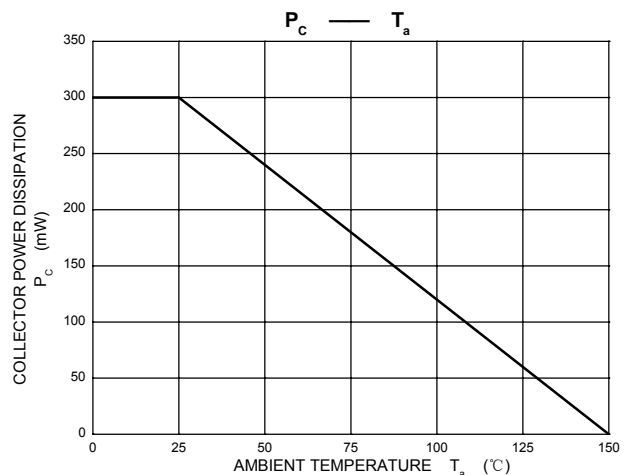
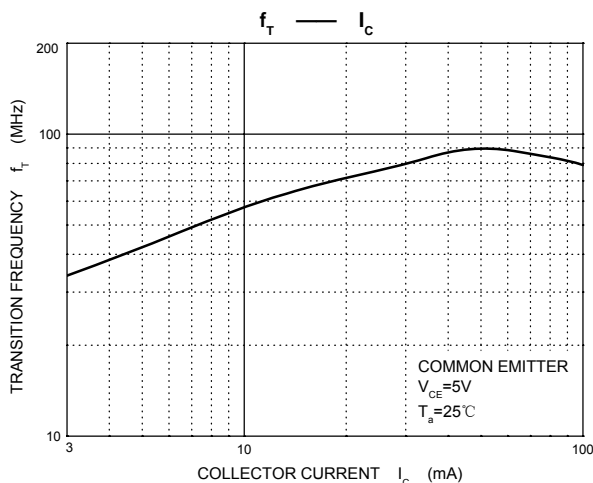
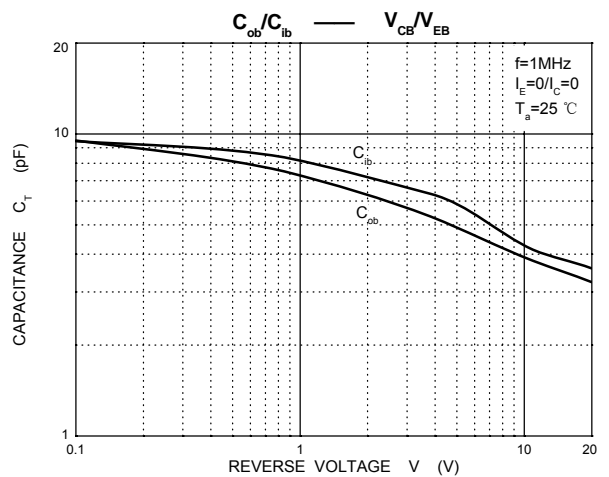
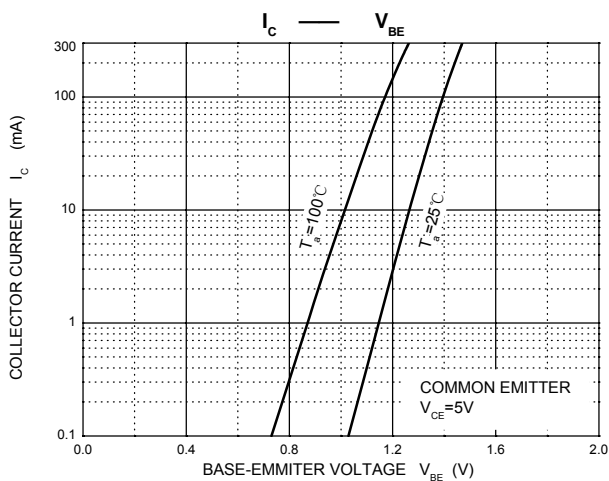
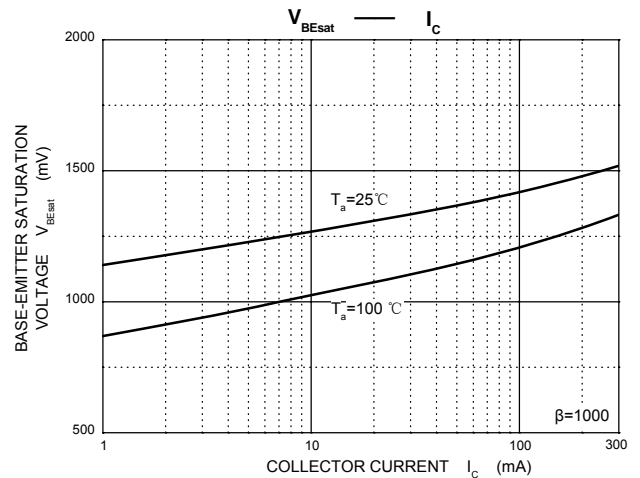
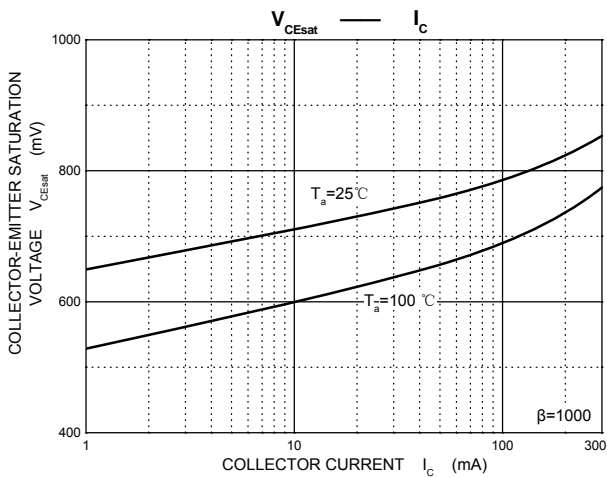
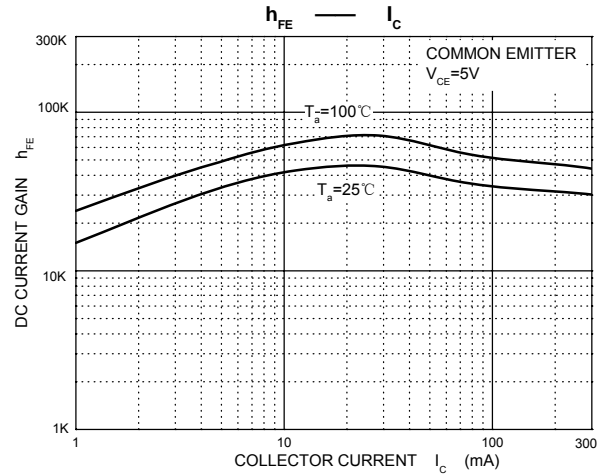
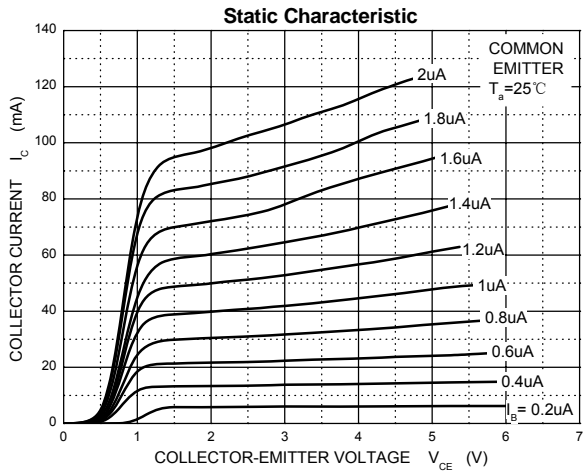
**ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless otherwise specified)**

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> = 100μA, I <sub>E</sub> =0	30		V
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = 100μA, I <sub>B</sub> =0	30		V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> = 100μA, I <sub>C</sub> =0	10		V
Collector cut-off current	I <sub>CBO</sub> *	V <sub>CB</sub> =30 V, I <sub>E</sub> =0		0.1	μA
Emitter cut-off current	I <sub>EBO</sub> *	V <sub>EB</sub> = 10V, I <sub>C</sub> =0		0.1	μA
DC current gain	h <sub>FE(1)</sub> *	V <sub>CE</sub> =5V, I <sub>C</sub> = 10mA	5000		
	h <sub>FE(2)</sub> *	V <sub>CE</sub> =5V, I <sub>C</sub> = 100mA	10000		
Collector-emitter saturation voltage	V <sub>CE(sat)</sub> *	I <sub>C</sub> =100mA, I <sub>B</sub> =0.1mA		1.5	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub> *	I <sub>C</sub> =100mA, I <sub>B</sub> =0.1mA		2	V
Base-emitter voltage	V <sub>BE</sub> *	V <sub>CE</sub> =5V, I <sub>C</sub> = 100mA		2.0	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> =5V, I <sub>C</sub> = 10mA f=100MHz	125		MHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz		12	pF

\* Pulse Test : pulse width≤300μs, duty cycles≤2%.

# Typical Characteristics

# MMBTA13



## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Darlington Transistors](#) category:*

*Click to view products by [Changjiang](#) manufacturer:*

Other Similar products are found below :

[281287X](#) [SMMBT6427LT1G](#) [2N7371](#) [BDV64B](#) [JANTXV2N6287](#) [028710A](#) [SMMBTA64LT1G](#) [2N6350](#) [2SB1214-TL-E](#)  
[SMMBTA14LT1G](#) [SBSP52T1G](#) [NJVMJD117T4G](#) [Jantx2N6058](#) [2N6353](#) [LB1205-L-E](#) [500-00005](#) [2N6053](#) [NJVMJD112G](#) [Jan2N6350](#)  
[Jantx2N6352](#) [Jantx2N6350](#) [BULN2803LVS](#) [ULN2001N](#) [2SB1383](#) [2SB1560](#) [2SB852KT146B](#) [TIP112TU](#) [TIP122TU](#) [BCV27](#) [MMBTA13-](#)  
[TP](#) [MMBTA14-TP](#) [MMSTA28T146](#) [BSP50H6327XTSA1](#) [KSH122TF](#) [NTE2557](#) [NJVNJD35N04T4G](#) [TIP115](#) [MPSA29-D26Z](#) [MJD127T4](#)  
[FJB102TM](#) [BCV26E6327HTSA1](#) [BCV46E6327HTSA1](#) [BCV47E6327HTSA1](#) [BSP61H6327XTSA1](#) [BU941ZPFI](#) [2SB1316TL](#) [2SD1980TL](#)  
[NTE2350](#) [NTE245](#) [NTE246](#)