

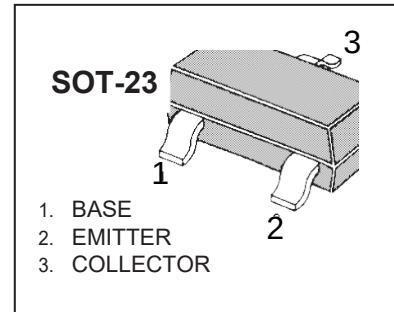
SOT-23 Plastic-Encapsulate Transistors

MMBTA63 / MMBTA64 PNP Darlington Transistor

for general purpose application, darlington transistor

MARKING CODE: **A63:2U**

A64:2V



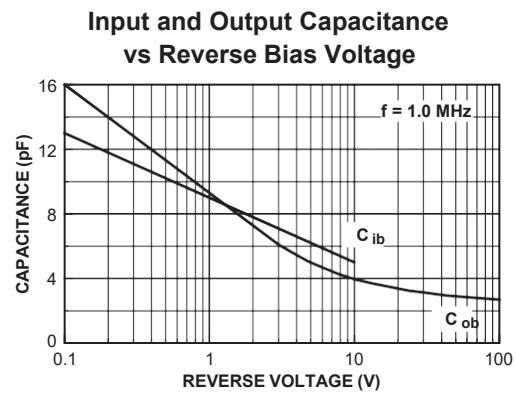
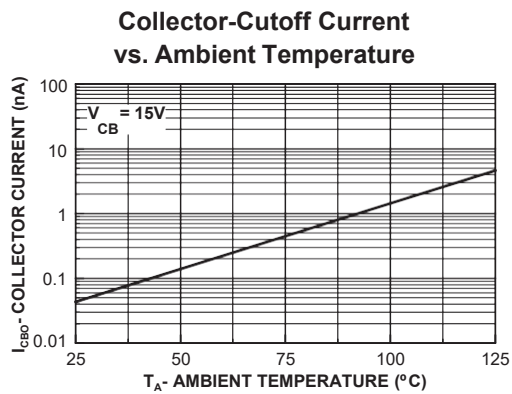
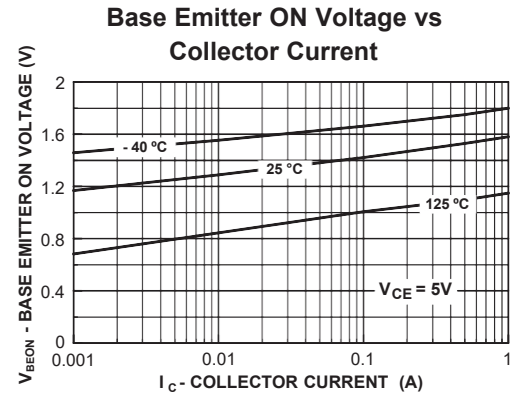
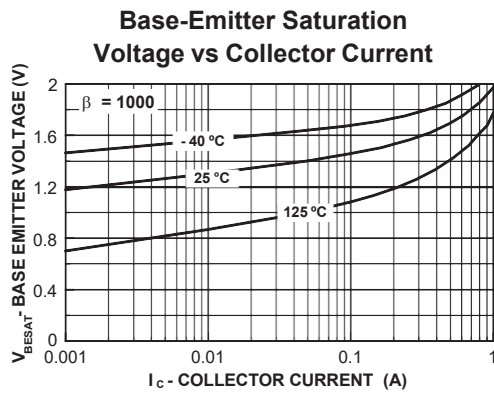
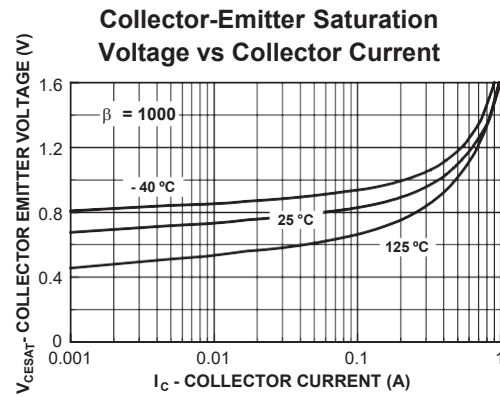
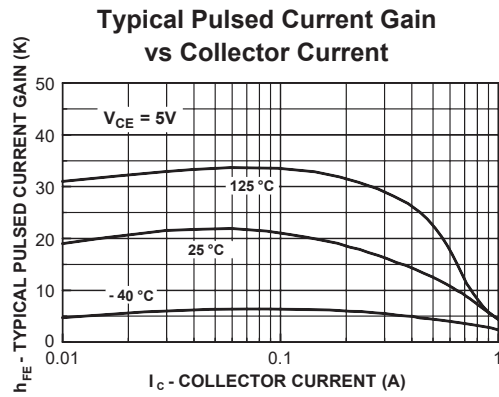
Absolute Maximum Ratings ($T_a = 25\text{ }^{\circ}\text{C}$)

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	30	V
Collector Emitter Voltage	$-V_{CEO}$	30	V
Emitter Base Voltage	$-V_{EBO}$	10	V
Collector Current	$-I_C$	500	mA
Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	150	$^{\circ}\text{C}$
Storage Temperature Range	T_s	- 55 to + 150	$^{\circ}\text{C}$

Characteristics at $T_a = 25\text{ }^{\circ}\text{C}$

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain				
at $-V_{CE} = 5\text{ V}$, $-I_C = 10\text{ mA}$	MMBTA63 h_{FE}	5000	-	-
at $-V_{CE} = 5\text{ V}$, $-I_C = 10\text{ mA}$	MMBTA64 h_{FE}	10000	-	-
at $-V_{CE} = 5\text{ V}$, $-I_C = 100\text{ mA}$	MMBTA63 h_{FE}	10000	-	-
at $-V_{CE} = 5\text{ V}$, $-I_C = 100\text{ mA}$	MMBTA64 h_{FE}	20000	-	-
Collector Cutoff Current				
at $-V_{CB} = 30\text{ V}$	$-I_{CBO}$	-	100	nA
Emitter Cutoff Current				
at $-V_{EB} = 10\text{ V}$	$-I_{EBO}$	-	100	nA
Collector Emitter Breakdown Voltage				
at $-I_C = 100\text{ }\mu\text{A}$	$-V_{(BR)CEO}$	30	-	V
Collector Emitter Saturation Voltage				
at $-I_C = 100\text{ mA}$, $-I_B = 0.1\text{ mA}$	$-V_{CE(sat)}$	-	1.5	V
Base Emitter On Voltage				
at $-V_{CE} = 5\text{ V}$, $-I_C = 100\text{ mA}$	$-V_{BE(on)}$	-	2	V
Transition Frequency				
at $-V_{CE} = 5\text{ V}$, $I_E = 10\text{ mA}$	f_T	125	-	MHz

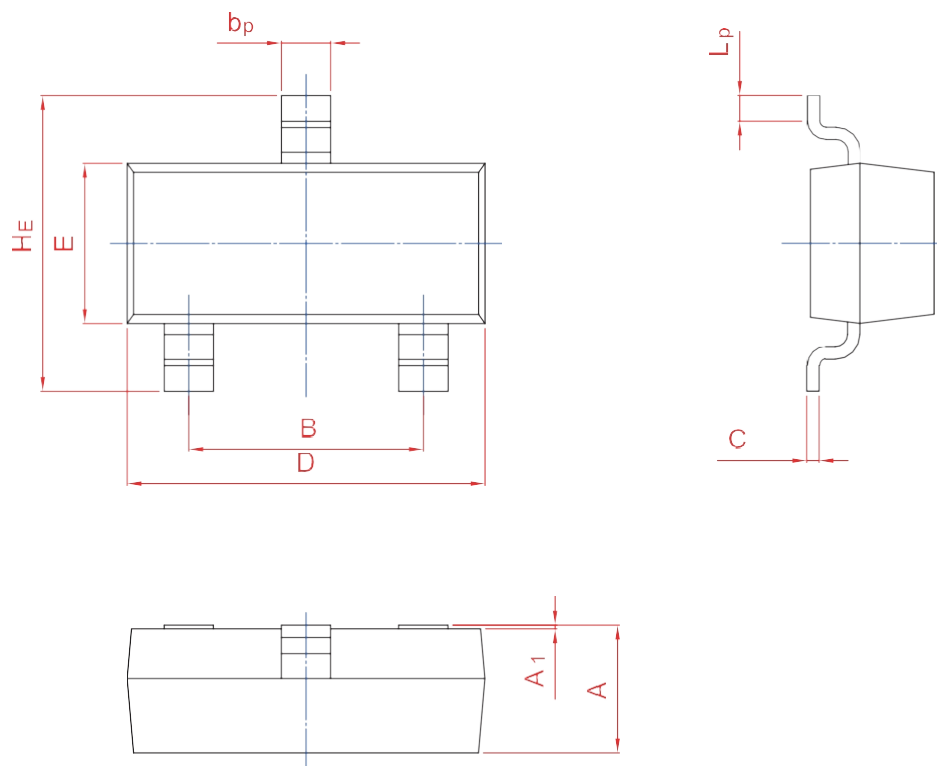
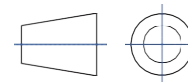
Typical Characteristics



PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



UNIT	A	B	b _p	C	D	E	H _E	A ₁	L _p
mm	1.40 0.95	2.04 1.78	0.50 0.35	0.19 0.08	3.10 2.70	1.65 1.20	3.00 2.20	0.100 0.013	0.50 0.20