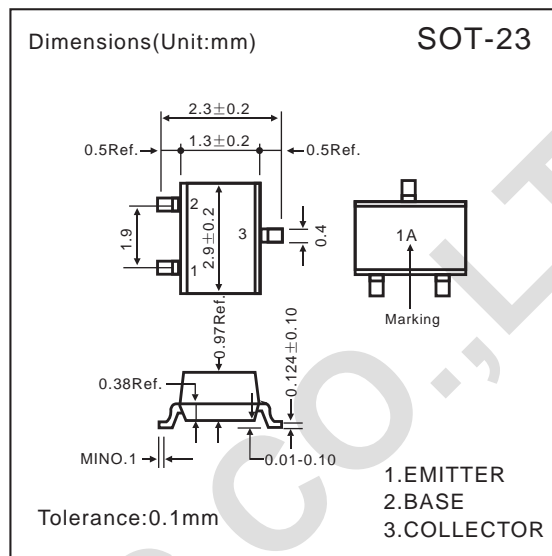


SOT-23 TRANSISTOR

GENERAL PURPOSE TRANSISTOR

- Complementary Pair with MMBT3906LT1.
- Collector Dissipation: $P_c=225mW$
- Collector-Emitter Voltage: $V_{CE0}=40V$
- NPN Epitaxial Silicon Transistor



Absolute Maximum Ratings

($T_a=25^{\circ}C$)

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	40	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_c	200	mA
Collector Dissipation	P_c	225	mW
Junction Temperature	T_j	150	$^{\circ}C$
Storage Temperature	T_{stg}	-50~150	$^{\circ}C$

Electrical Characteristics

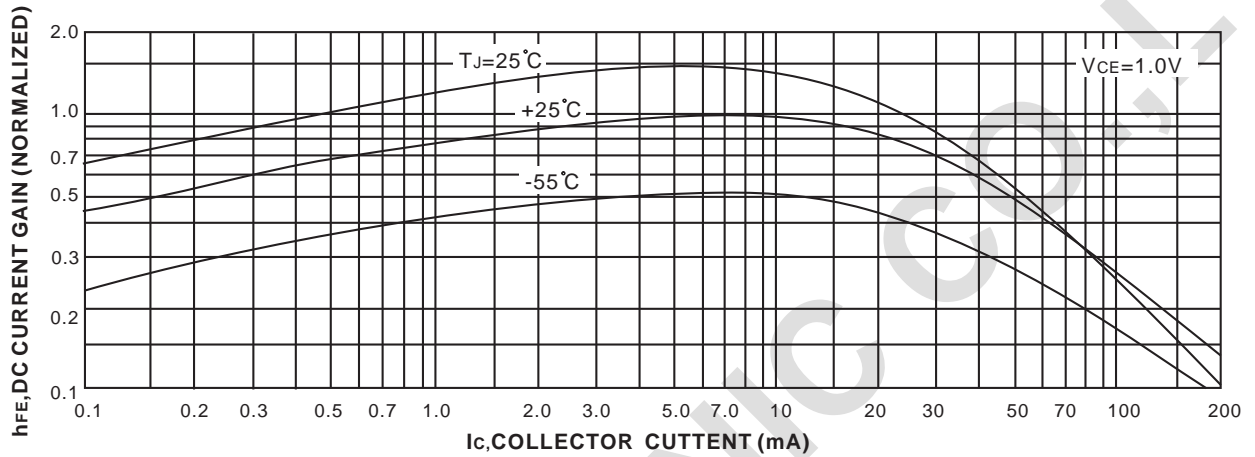
($T_a=25^{\circ}C$)

Parameter	Symbol	MIN.	TYP.	MAX.	Unit	Condition
Collector-Emitter Breakdown Voltage	BV_{CEO}	40			V	$I_c=1mA, I_B=0$
Collector-Base Breakdown Voltage	BV_{CBO}	60			V	$I_c=10\mu A, I_E=0$
Emitter-Base Breakdown Voltage	BV_{EBO}	6			V	$I_E=10\mu A, I_C=0$
Collector Cut-off Current	I_{CEO}			50	nA	$V_{CB}=30V, V_{EB}=3V$
Emitter-Base Cutoff Current	I_{EBO}			50	nA	$V_{CB}=3V, I_C=0$
DC Current Gain	h_{FE1}	40				$V_{CE}=1V, I_c=0.1mA$
DC Current Gain	h_{FE2}	70				$V_{CE}=1V, I_c=1mA$
DC Current Gain	h_{FE3}	100		300		$V_{CE}=1V, I_c=10mA$
DC Current Gain	h_{FE4}	60				$V_{CE}=1V, I_c=50mA$
DC Current Gain	h_{FE5}	30				$V_{CE}=1V, I_c=100mA$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			0.2	V	$I_c=10mA, I_B=1mA$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			0.3	V	$I_c=50mA, I_B=5mA$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	0.65		0.85	V	$I_c=10mA, I_B=1mA$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			0.95	V	$I_c=50mA, I_B=5mA$
Output Capacitance	C_{ob}			4	PF	$V_{CE}=5V, I_c=0, f=1MHz$
Current Gain-Bandwidth Product	f_T	300			MHz	$V_{CE}=20V, I_c=10mA, f=100MHz$

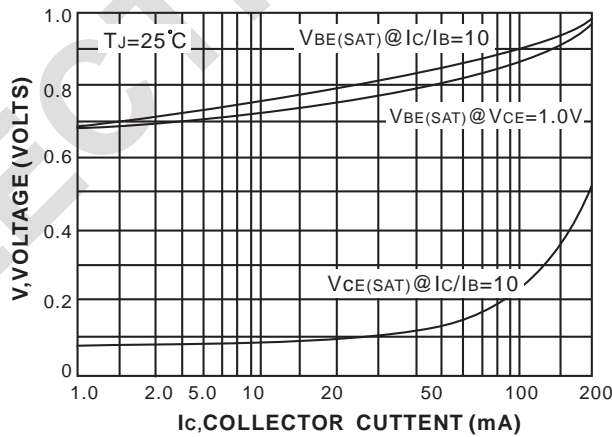
Total Device Dissipation: $FR=1X0.75X0.062$ in Board Derate $25^{\circ}C$

Pulse Test: Pulse Width 300uS Duty cycle 2%

Typical Characteristics



DC Current Gain



"On" Voltages