



Features

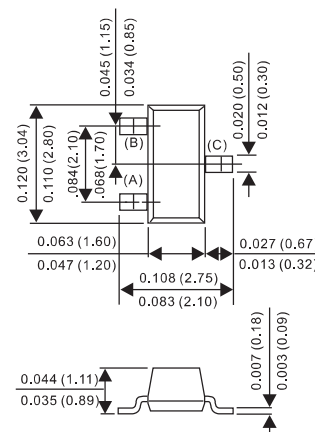
Complementary type the PNP transistor
A1015 is recommended.

SOT - 23



Maximum ratings (AT $T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current -Continuous	I_C	150	mA
Collector Power Dissipation	P_C	0.2	W
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^{\circ}\text{C}$



Dimensions in inches and (millimeters)

Electrical characteristics (AT $T_A=25^{\circ}\text{C}$ unless otherwise noted)

Off characteristics

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CBO}	$I_C=100\mu\text{A}$, $I_E=0$	60			V
Collector-emitter breakdown voltage	V_{CEO}	$I_C=0.1\text{mA}$, $I_B=0$	50			V
Emitter-base breakdown voltage	V_{EBO}	$I_E=100\mu\text{A}$, $I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=60\text{V}$, $I_E=0$			0.1	μA
Collector cut-off current	I_{CE}	$V_{CE}=50\text{V}$, $I_B=0$			0.1	μA
Emitter cut-off current	I_{EB}	$V_{EB}=5\text{V}$, $I_C=0$			0.1	μA
DC current gain	h_{FE}	$V_{CE}=6\text{V}$, $I_C=2\text{mA}$	130		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=100\text{mA}$, $I_B=10\text{mA}$			0.25	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=100\text{mA}$, $I_B=10\text{mA}$			1	V
Transition frequency	f_T	$V_{CE}=10\text{V}$, $I_C=1\text{mA}$, $f=30\text{MHz}$	80			MHz

CLASSIFICATION OF h_{FE}

Rank	L	H	
Range	130-200	200-400	

Typical Characteristics

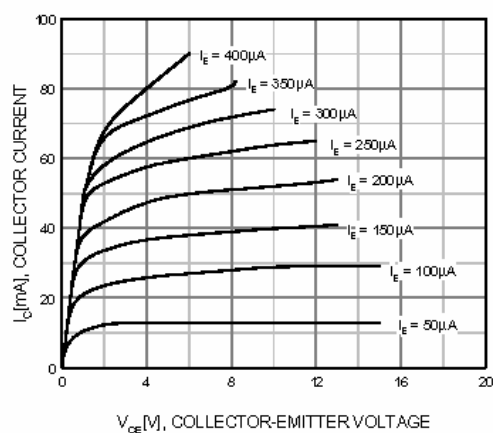


Figure 1. Static Characteristic

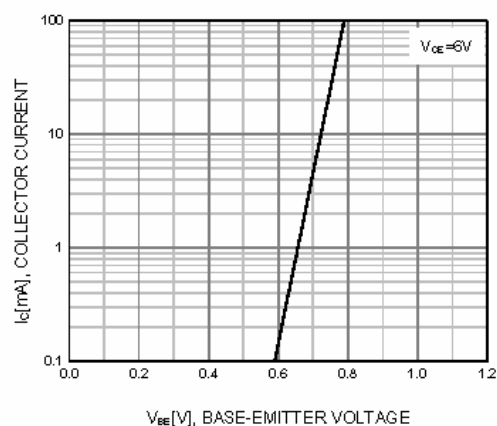


Figure 2. Transfer Characteristic

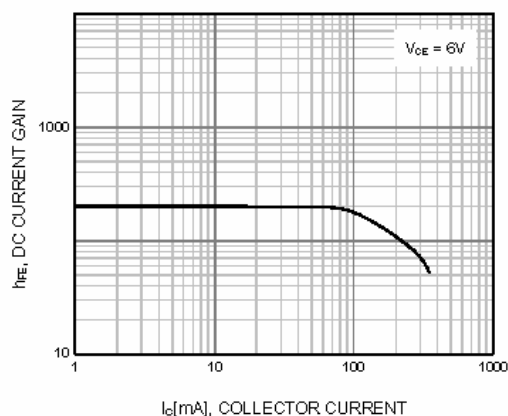
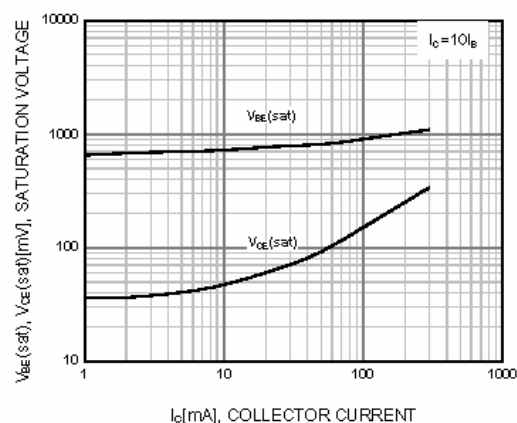


Figure 3. DC current Gain



**Figure 4. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage**

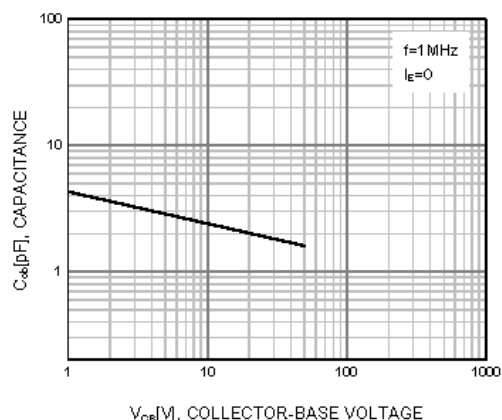


Figure 5. Output Capacitance

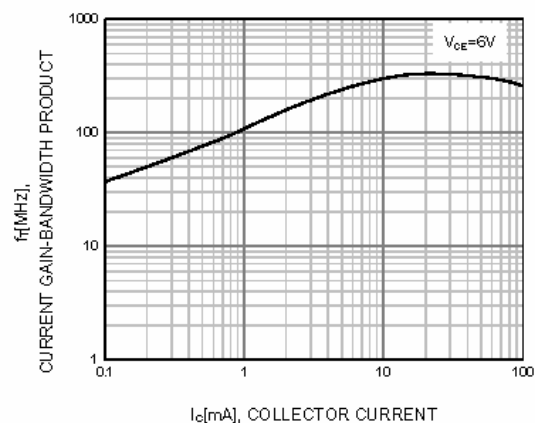
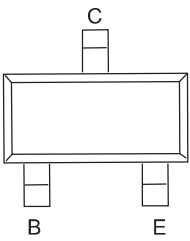
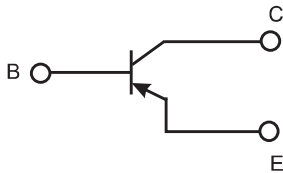


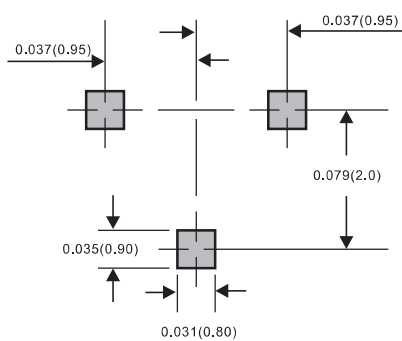
Figure 6. Current Gain Bandwidth Product

**Pinning information**

Pin	Simplified outline	Symbol
PinB Base PinC Collector PinE Emitter		

Marking

Type number	Marking code
MMBTC1815	HF

Suggested solder pad layout**SOT-23**

Dimensions in inches and (millimeters)