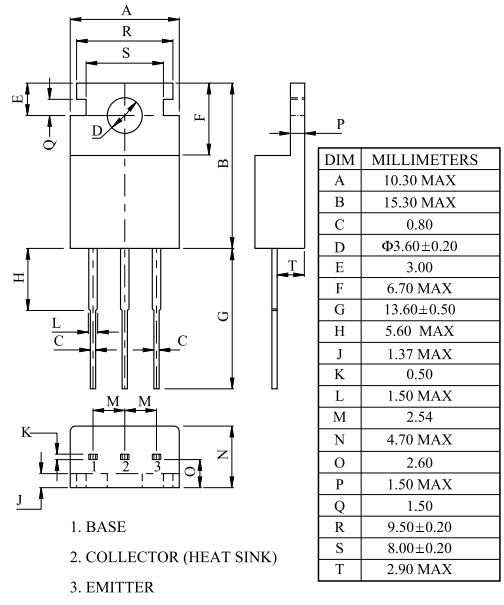
MONOLITHIC CONSTRUCTION WITH BUILT IN
BASE-EMITTER SHUNT RESISTORS INDUSTRIAL USE.

FEATURES

- High DC Current Gain.
  : h_{FE}=1000(Min.), @V_{CE}=4V, I_C=1A.
- Low Collector-Emitter Saturation Voltage.
- Complementary to TIP117.



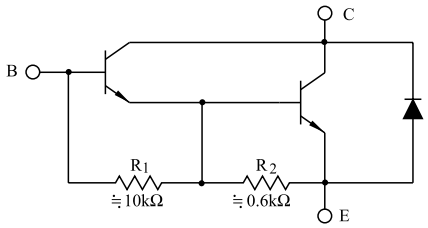
DIM	MILLIMETERS
A	10.30 MAX
B	15.30 MAX
C	0.80
D	Φ3.60±0.20
E	3.00
F	6.70 MAX
G	13.60±0.50
H	5.60 MAX
J	1.37 MAX
K	0.50
L	1.50 MAX
M	2.54
N	4.70 MAX
O	2.60
P	1.50 MAX
Q	1.50
R	9.50±0.20
S	8.00±0.20
T	2.90 MAX

TO-220AB

MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	100	V
Collector-Emitter Voltage		V_{CEO}	100	V
Emitter-Base Voltage		V_{EBO}	5	V
Collector Current	DC	I_C	2	A
	Pulse	I_{CP}	4	
Base Current	DC	I_B	50	mA
Collector Power Dissipation	Ta=25℃	P_C	2	W
	Tc=25℃		50	
Junction Temperature		T_j	150	℃
Storage Temperature Range		T_{stg}	-65 150	℃

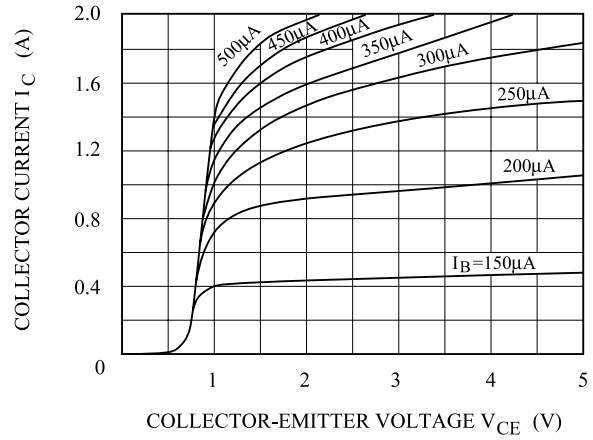
EQUIVALENT CIRCUIT



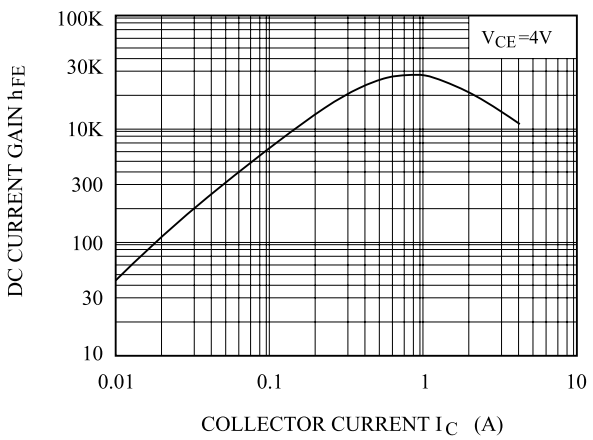
ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CEO}	V_{CE}=50V, I_B=0	-	-	2	mA
	I_{CBO}	V_{CB}=100V, I_E=0	-	-	1	
Emitter Cut-off Current	I_{EBO}	V_{EB}=5V, I_C=0	-	-	2	mA
DC Current Gain	h_{FE}	V_{CE}=4V, I_C=1A	1000	-	-	
		V_{CE}=4V, I_C=2A	500	-	-	
Collector-Emitter Sustaining Voltage	$V_{CEO(SUS)}$	I_C=30mA, I_B=0	100	-	-	V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=2A, I_B=8mA	-	-	2.5	V
Base-Emitter On Voltage	$V_{BE(ON)}$	V_{CE}=4V, I_C=2A	-	-	2.8	V
Collector Output Capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=0.1MHz	-	-	100	pF

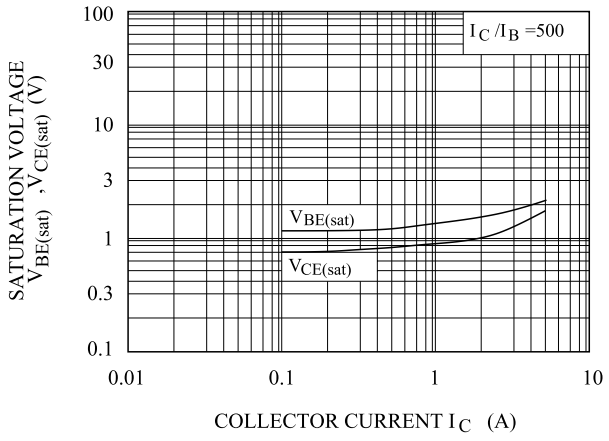
I_C - V_{CE}



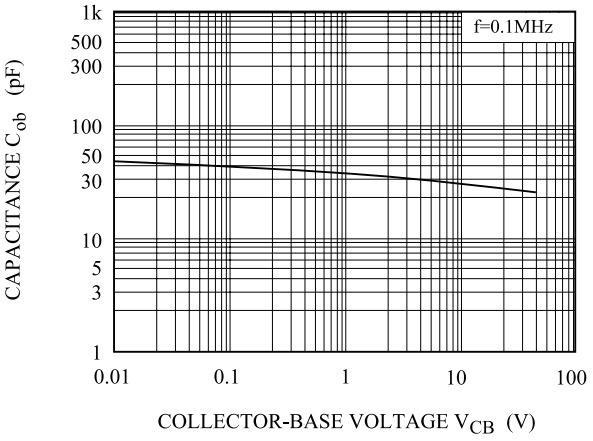
h_{FE} - I_C



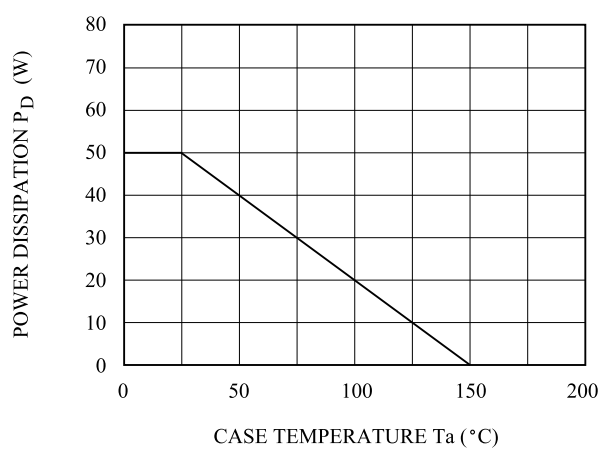
$V_{BE(sat)}$, $V_{CE(sat)}$ - I_C



C_{ob} - V_{CB}



P_D - Ta



SAFE OPERATING AREA