

EPITAXIAL PLANAR NPN TRANSISTORS

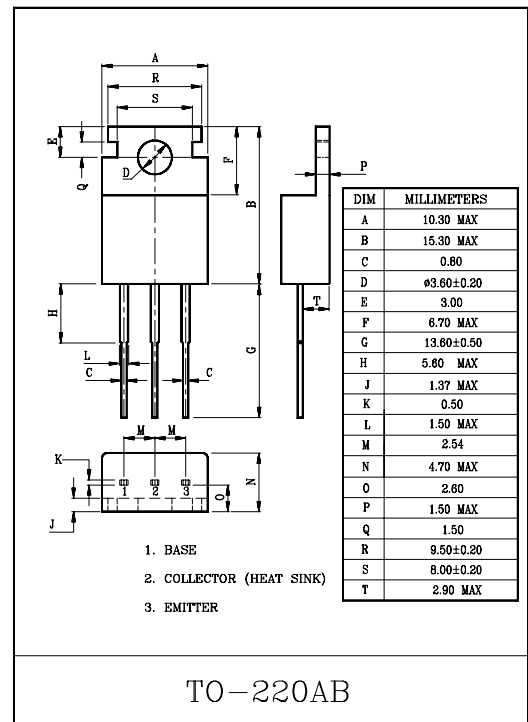
GENERAL PURPOSE APPLICATION.

FEATURES

- Complementary to TIP42C.

MAXIMUM RATINGS (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	6	A
	Pulse	I_{CP}	10	
Base Current		I_B	2	A
Collector Power Dissipation	Ta=25℃	P_C	2	W
	Tc=25℃		65	W
Junction Temperature		T_j	150	℃
Storage Temperature Range		T_{sig}	-55~150	℃

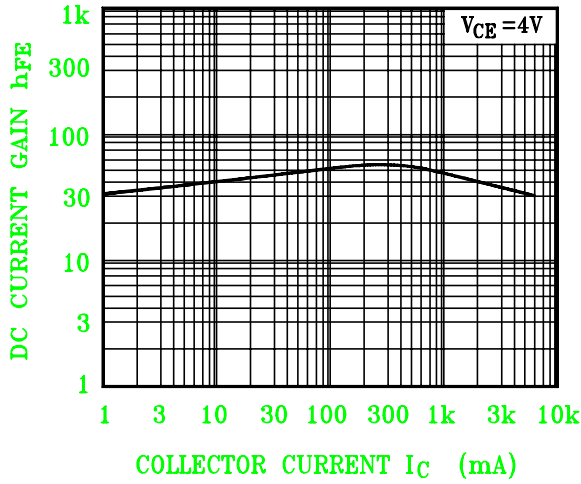


ELECTRICAL CHARACTERISTICS (Ta=25℃)

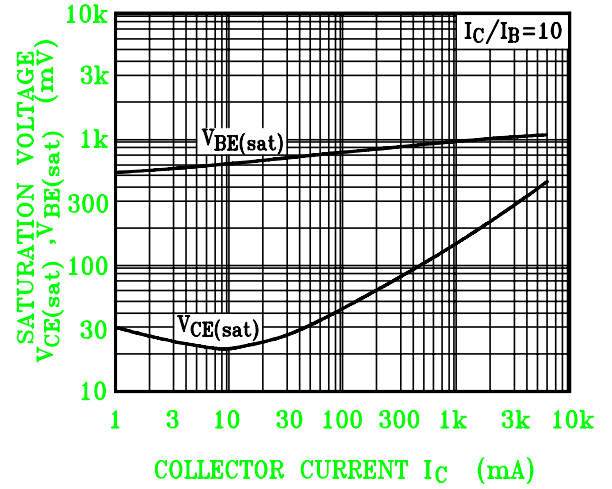
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Emitter Sustaining Voltage	$V_{CEO(SUS)}$	$I_C=30mA, I_B=0$	100	—	—	V
Collector Cut-off Current	I_{CEO}	$V_{CE}=60V, I_B=0$	—	—	0.7	mA
Collector Cut-off Current	I_{CES}	$V_{CE}=100V, V_{EB}=0$	—	—	400	μA
Emitter Cut-off Current	I_{EBO}	$V_{BE}=5V, I_C=0$	—	—	1	mA
DC Current Gain	h_{FE}	$V_{CE}=4V, I_C=0.3A$	30	—	—	
		$V_{CE}=4V, I_C=3A$	15	—	75	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=6A, I_B=600mA$	—	—	1.5	V
Base-Emitter On Voltage	$V_{BE(on)}$	$V_{CE}=4V, I_C=6A$	—	—	2.0	V
Transition Frequency	f_T	$V_{CE}=10V, I_C=500mA$ $f=1MHz$	3.0	—	—	MHz

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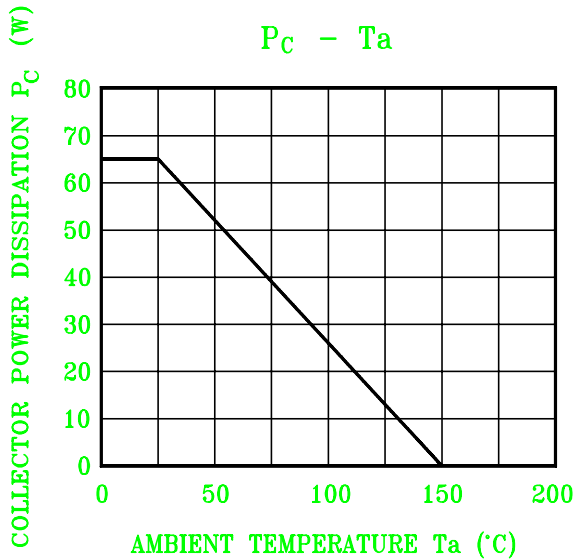
$h_{FE} - I_C$



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



$P_C - T_a$



SAFE OPERATING AREA

