

COMPLEMENTARY HIGH-POWER SILICON POWER TRANSISTORS

FEATURES

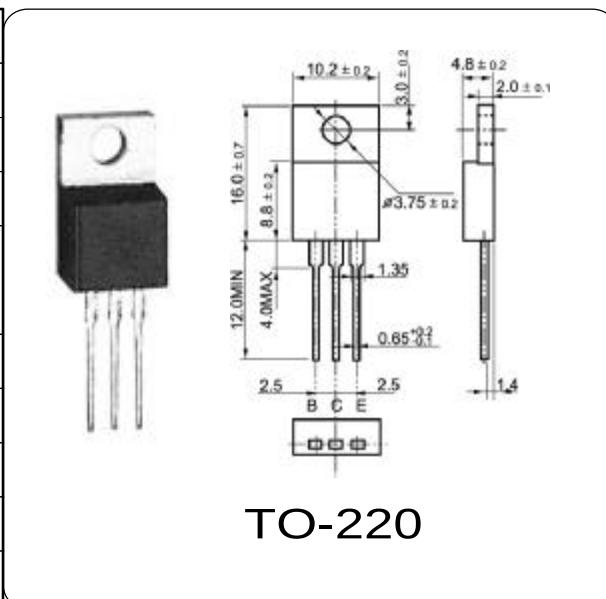
Complementary to TIP31C.
Triple Diffused PNP Transistors

APPLICATION

LINEAR AND SWITCHING INDUSTRIAL
EQUIPMENT

MAXIMUM RATINGS (Ta=25°C)

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	-3	A
	Pulse	I_{CP}	-5	
Base Current		I_B	-1	A
Collector Power Dissipation	(Ta=25°C)	P_C	2	W
	(Tc=25°C)		40	W
Junction Temperature		T_j	150	°C
Storage Temperature Range		T_{stg}	-55~150	°C

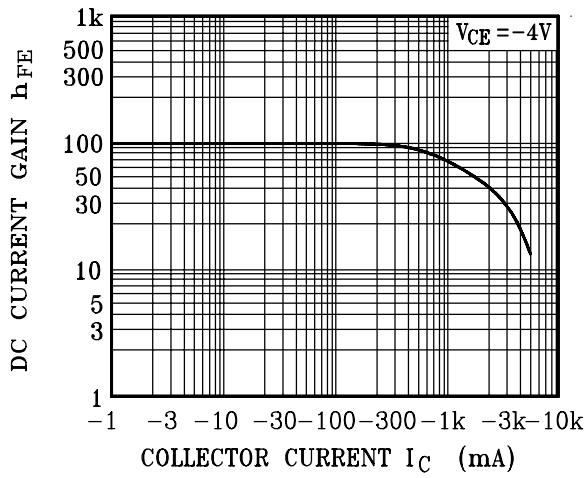


ELECTRICAL CHARACTERISTICS (Ta=25°C)

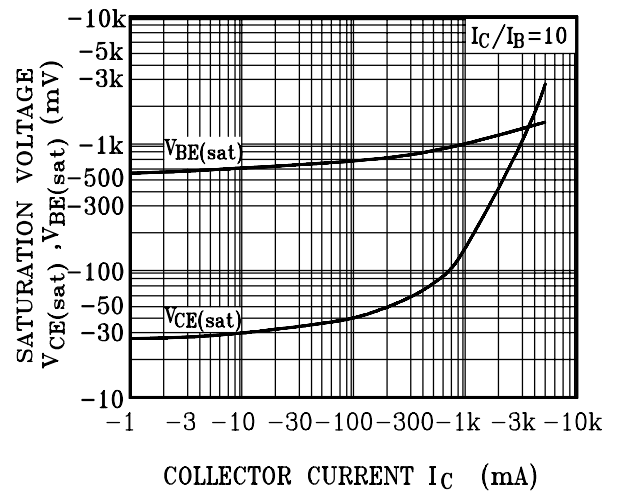
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Emitter Sustaining Voltage	$V_{CEO(SUS)}$	$I_C = -30mA, I_B = 0$	-100	-	-	V
Collector Cut-off Current	I_{CEO}	$V_{CE} = -60V, I_B = 0$	-	-	-0.3	mA
Collector Cut-off Current	I_{CES}	$V_{CE} = -100V, V_{EB} = 0$	-	-	-200	μA
Emitter Cut-off Current	I_{EBO}	$V_{BE} = -5V, I_C = 0$	-	-	-1	mA
DC Current Gain	h_{FE}	$V_{CE} = -4V, I_C = -1A$	25	-	-	
		$V_{CE} = -4V, I_C = -3A$	10	-	50	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -3A, I_B = -375mA$	-	-	-1.2	V
Base-Emitter On Voltage	$V_{BE(on)}$	$V_{CE} = -4V, I_C = -3A$	-	-	-1.8	V
Transition Frequency	f_T	$V_{CE} = -10V, I_C = -500mA, f = 1MHz$	3.0	-	-	MHz

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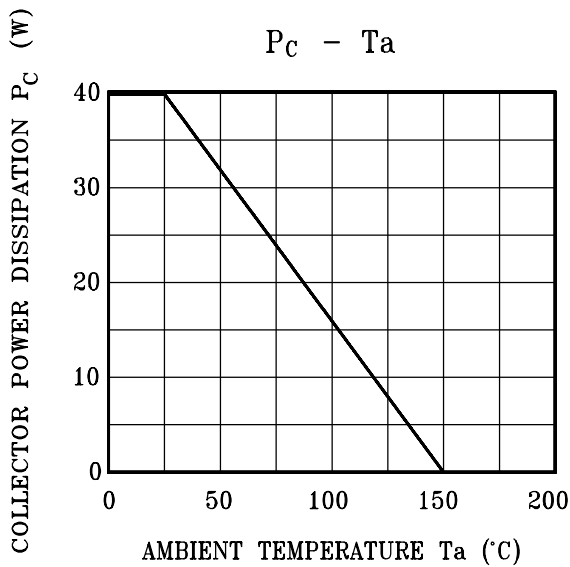
$h_{FE} - I_C$



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



$P_C - T_a$



SAFE OPERATING AREA

