Elektronische Bauelemente

C945T

NPN Silicon
Plastic-Encapsulate Transistor

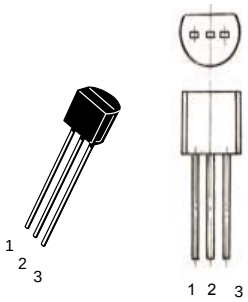
RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

FEATURES

- Low noise
- Excellent h_{FE} linearity
- Complementary to A733T

TO-92



1. EMITTER
2. COLLECTOR
3. BASS

MAXIMUM RATINGS (T_A = 25 °C unless otherwise noted)

Parameter	Symbol	Value	Units
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	400	mW
Junction, Storage Temperature	T_J, T_{STG}	125, -55~125	°C

ELECTRICAL CHARACTERISTICS (Tamb = 25 °C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Units
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C = 1mA, I_E = 0	60			V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C = 100μA, I_B = 0	50			V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E = 100mA, I_C = 0	5			V
Collector Cut-off Current	I_{CBO}	V_{CB} = 60V, I_E = 0			0.1	μA
Collector Cut-off Current	I_{CEO}	V_{CE} = 45V			0.1	μA
Emitter Cut-off Current	I_{EBO}	V_{EB} = 5V, I_C = 0			0.1	μA
DC Current Gain	$h_{FE(1)}$	V_{CE} = 6V, I_C = 1mA	70		700	
	$h_{FE(2)}$	V_{CE} = 6V, I_C = 0.1mA	40			
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = 100mA, I_B = 10mA			0.3	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C = 100mA, I_B = 10mA			1	V
Collector Power Dissipation	C_{ob}	V_{CB} = 10V, I_E = 0, f = 1MHz			3.0	pF
Transition Frequency	f_T	V_{CE}=6V, I_C=10mA, f=30MHz	200			MHz
Noise Figure	NF	V_{CE}=6V, I_C=0.1mA, R_G=10 KΩ, f=kMHz			10	dB

CLASSIFICATION OF hFE

Rank	O	Y	GR	BL
Range	70-140	120-240	200-400	350-700

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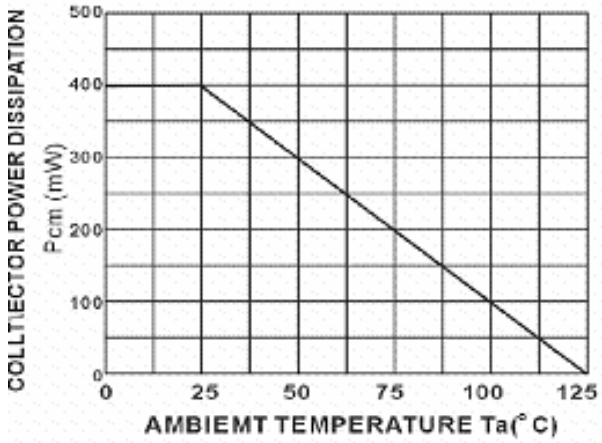
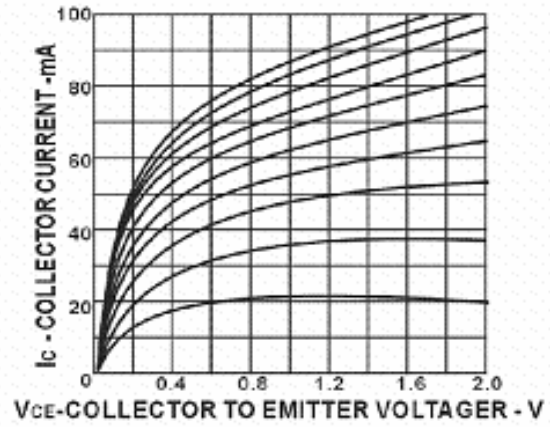
TYPICAL CHARACTERISTICS

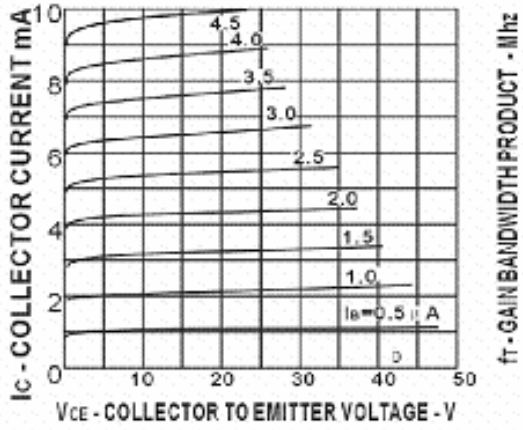
TOTAL Power Dissipation vs AMBIENT Temperature



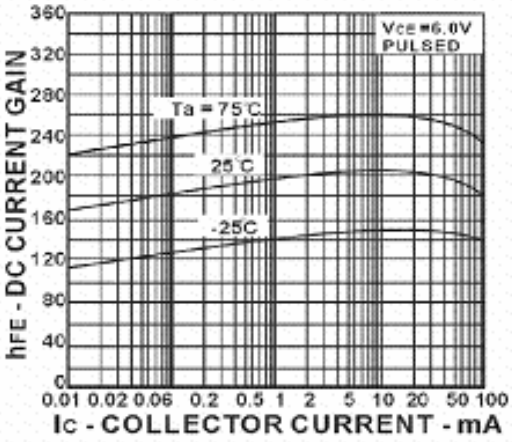
COLLECTOR CURRENT vs COLLECTOR TO EMITTER VOLTAGE



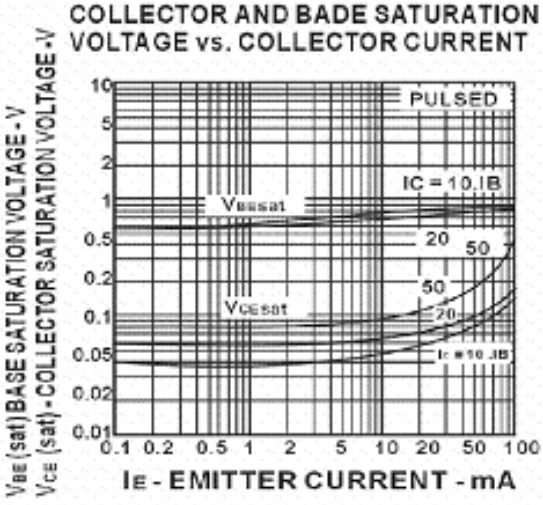
COLLECTOR CURRENT vs.COLLECTOR TO EMITTER VOLTAGE



DC CURRNT GAIN vs. COLLECTOR CURRENT



COLLECTOR AND BADE SATURATION VOLTAGE vs. COLLECTOR CURRENT



DC CURRENT GAIN vs.COLLECTOR CURRENT