Elektronische Bauelemente

3DD13003B

1.5A , 700V

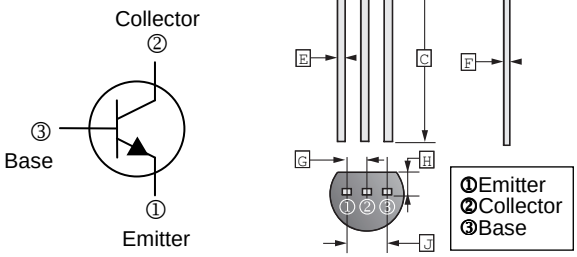
NPN Plastic-Encapsulated Transistor

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Power switching applications

TO-92



REF.	Millimeter	
	Min.	Max.
A	4.40	4.70
B	4.30	4.70
C	12.70	-
D	3.30	3.81
E	0.36	0.56
F	0.36	0.51
G	1.27 TYP.	
H	1.10	-
J	2.42	2.66
K	0.36	0.76

ABSOLUTE MAXIMUM RATINGS (T_A=25℃ unless otherwise specified)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	700	V
Collector to Emitter Voltage	V_{CEO}	400	V
Emitter to Base Voltage	V_{EBO}	9	V
Collector Current - Continuous	I_C	1.5	A
Collector Power Dissipation	P_C	900	mW
Junction, Storage Temperature	T_J, T_{STG}	150, -55~150	℃

ELECTRICAL CHARACTERISTICS (T_A=25℃ unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	700	-	-	V	I_C=1mA, I_E=0
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	400	-	-	V	I_C=10mA, I_B=0
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	9	-	-	V	I_E=1mA, I_C=0
Collector Cut – Off Current	I_{CBO}	-	-	100	μA	V_{CB}=700V, I_E=0
	I_{CEO}			50		V_{CE}=400V, I_B=0
Emitter Cut – Off Current	I_{EBO}	-	-	10	μA	V_{EB}=7V, I_C=0
DC Current Gain	h_{FE}	20	-	30		V_{CE}=10V, I_C=400mA
Collector to Emitter Saturation Voltage	$V_{CE(sat)1}$	-	-	3	V	I_C=1.5A, I_B=500mA
	$V_{CE(sat)2}$	-	-	0.8		I_C=0.5A, I_B=100mA
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	-	-	1	V	I_C=0.5A, I_B=100mA
Transition Frequency	f_T	4	-	-	MHz	V_{CE}=10V, I_C=100mA, f =1MHz
Storage time	t_S	-	-	4	μs	I_{B1}= -I_{B2}=0.2A
Fall time	t_F	-	-	0.7	μs	I_C=1A

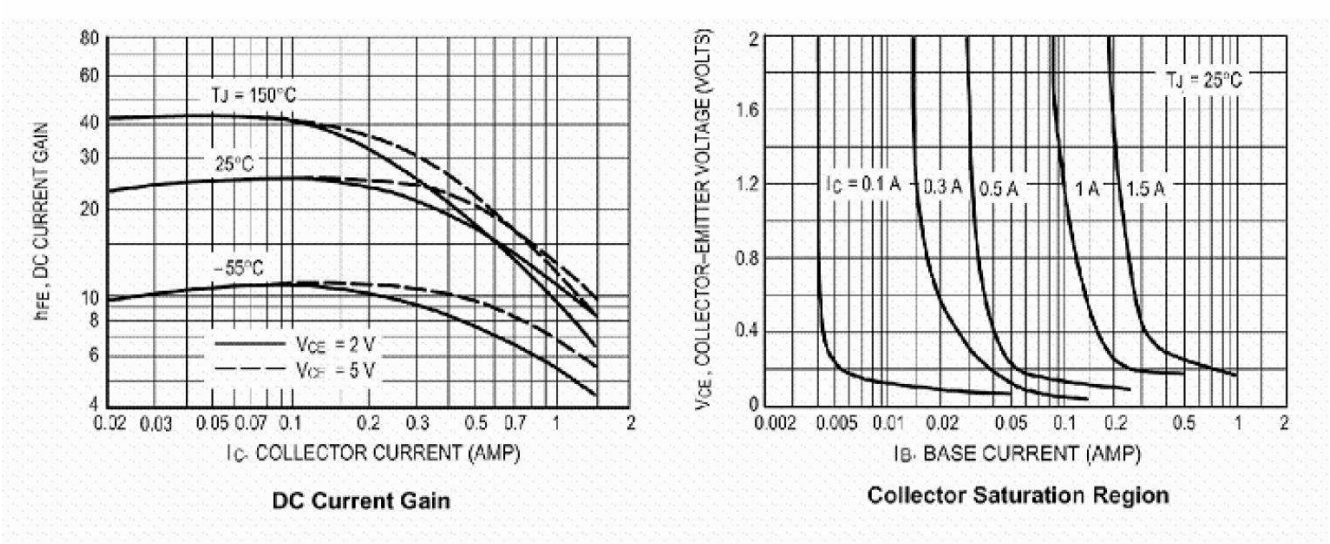
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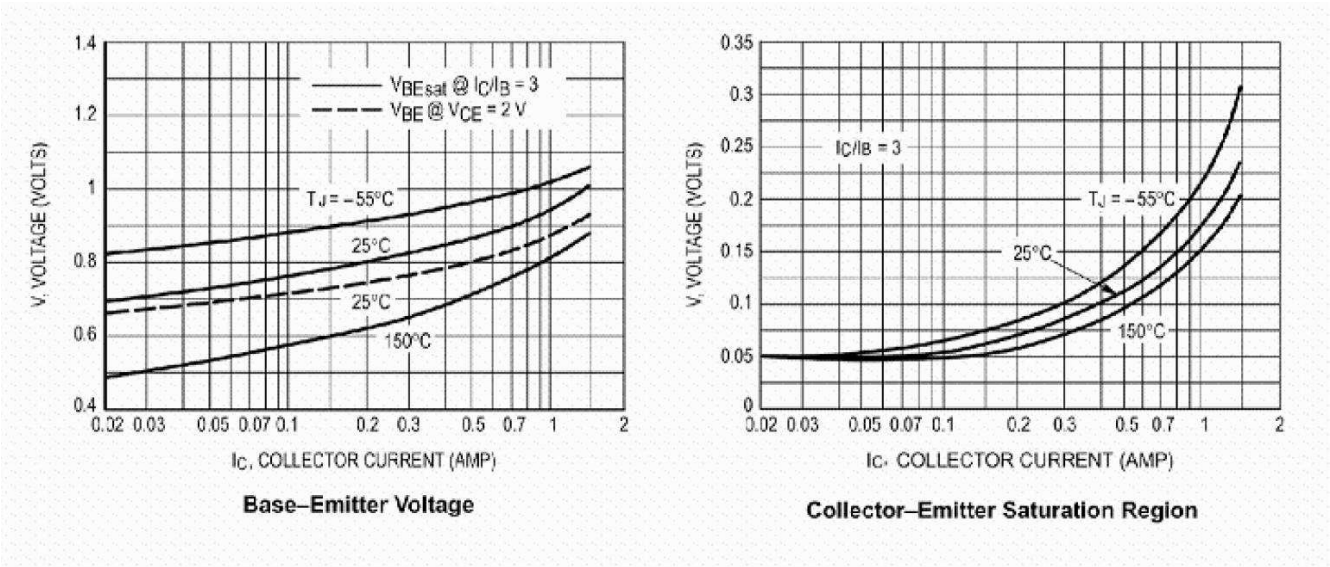
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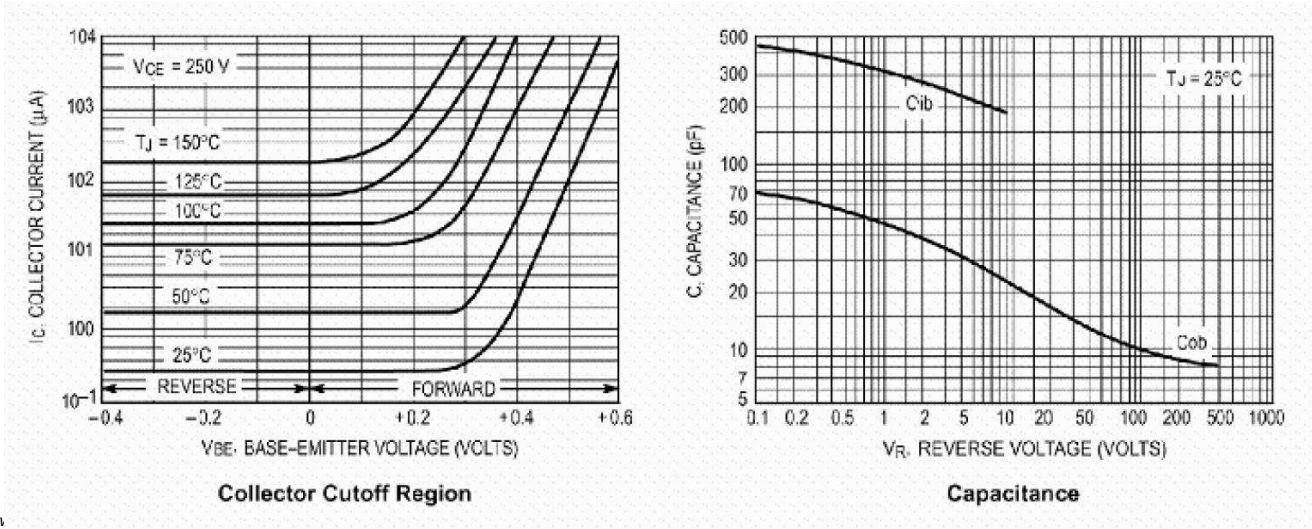
CHARACTERISTIC CURVES



DC Current Gain | Collector Saturation Region



Base–Emitter Voltage | Collector–Emitter Saturation Region



Collector Cutoff Region | Capacitance

http://w vidually.