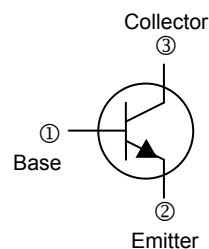
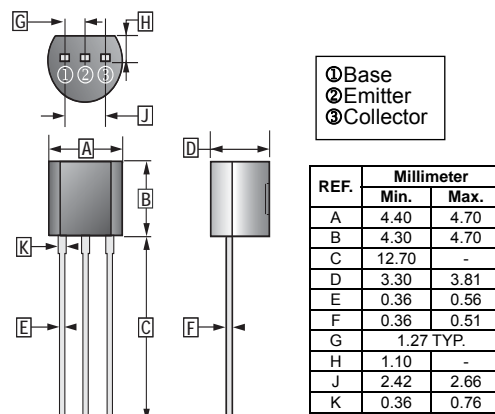


RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- High Gain : $G_{pe}=33$ dB(Typ.)(f =45MHz)
- Good Linearity of h_{FE}

TO-92



ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

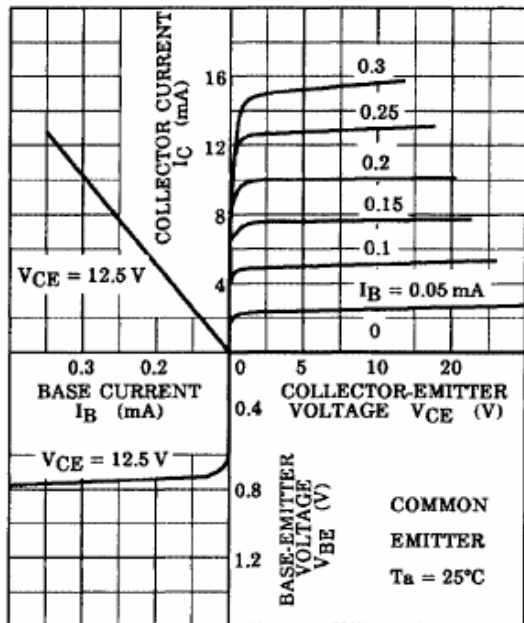
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	30	V
Collector to Emitter Voltage	V_{CEO}	25	V
Emitter to Base Voltage	V_{EBO}	4	V
Collector Current - Continuous	I_C	50	mA
Collector Power Dissipation	P_C	300	mW
Junction, Storage Temperature	T_J, T_{STG}	125, -55~125	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

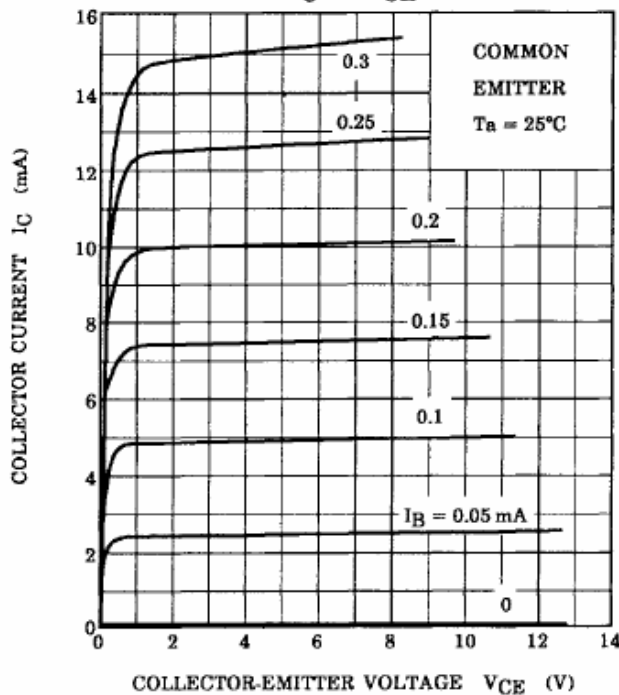
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	30	-	-	V	$I_C=100\mu\text{A}, I_E=0$
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	25	-	-	V	$I_C=10\text{mA}, I_B=0$
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	4	-	-	V	$I_E=100\mu\text{A}, I_C=0$
Collector Cut - Off Current	I_{CBO}	-	-	0.1	μA	$V_{CB}=30\text{V}, I_E=0$
Emitter Cut - Off Current	I_{EBO}	-	-	0.1	μA	$V_{EB}=3\text{V}, I_C=0$
DC Current Gain	h_{FE}	40	-	240		$V_{CE}=12.5\text{V}, I_C=12.5\text{mA}$
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	0.2	V	$I_C=15\text{mA}, I_B=1.5\text{mA}$
Base to Emitter Saturation voltage	$V_{BE(sat)}$	-	-	1.5	V	$I_C=15\text{mA}, I_B=1.5\text{mA}$
Transition Frequency	f_T	300	-	-	MHz	$V_{CE}=12.5\text{V}, I_C=12.5\text{mA}$
Collector Output Capacitance	C_{ob}	0.8	-	2	pF	$V_{CB}=10\text{V}, I_E=0, f=30\text{MHz}$
Collector to Base Time Constant	$C_C^{rbb'}$	-	-	25	ps	$V_{CB}=10\text{V}, I_E=-1\text{mA}, f=30\text{MHz}$
Power Gain	G_{pe}	28	-	36	dB	$V_{CC}=12.5\text{V}, I_E=-12.5\text{mA}, f=45\text{MHz}$

CHARACTERISTIC CURVES

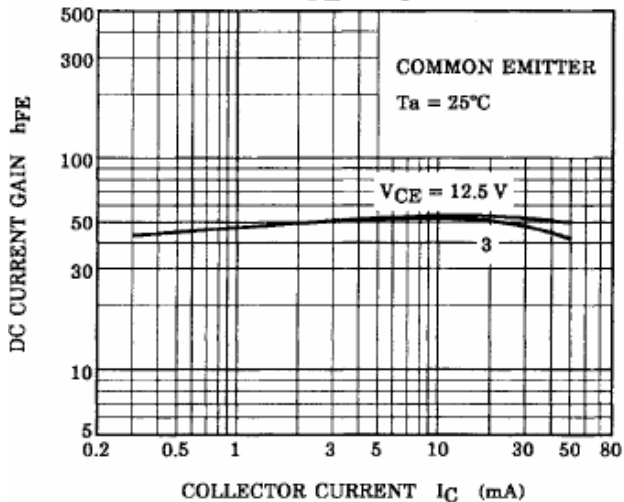
STATIC CHARACTERISTICS



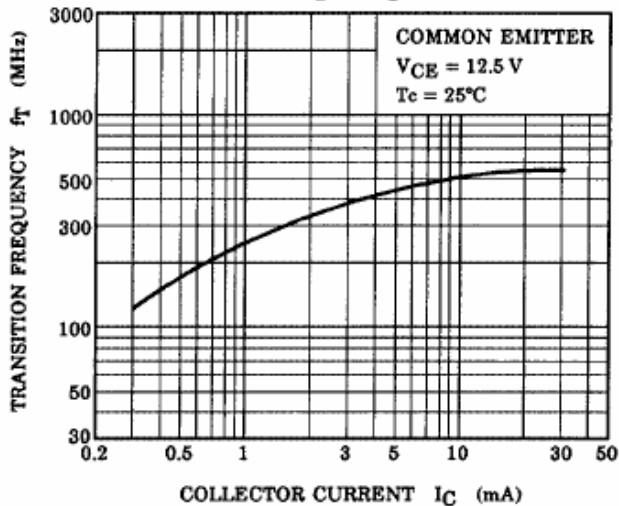
$I_C - V_{CE}$



$h_{FE} - I_C$



$f_T - I_C$



CHARACTERISTIC CURVES

