



APPLICATIONS

Class-B video output stages in colour television and professional monitor equipment

ABSOLUTE MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$)

T_{stg} —Storage Temperature..... $-55\sim 150^{\circ}\text{C}$

T_j —Junction Temperature..... 150°C

P_C —Collector Dissipation..... 830mW

V_{CBO} —Collector-Base Voltage..... 250V

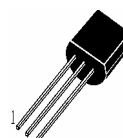
V_{CEO} —Collector-Emitter Voltage..... 250V

V_{EBO} —Emitter-Base Voltage..... 5V

I_C —Collector Current..... 50mA

I_{CP} —Collector Current (Pulse) 100mA

TO-92



1—Emitter, E

2—Collector, C

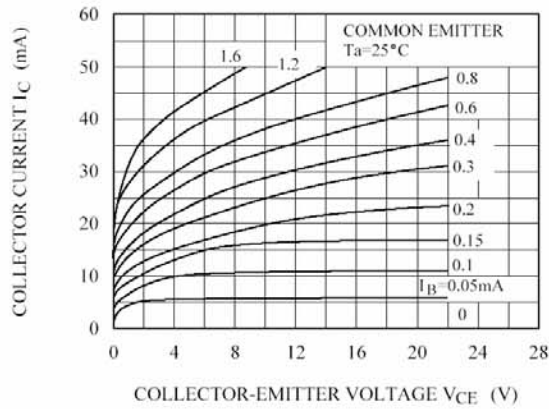
3—Base, B

ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$)

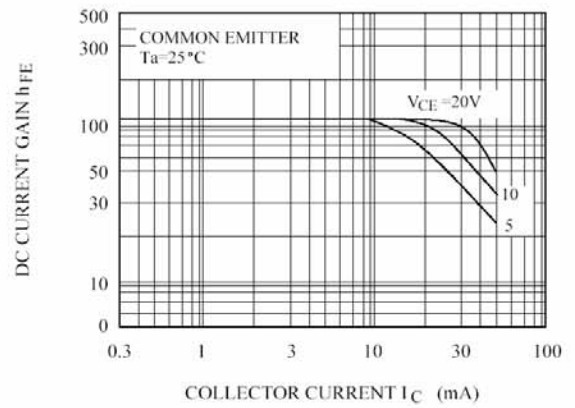
Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
BVCBO	Collector-Base Breakdown Voltage	250			V	$I_C=100\text{ }\mu\text{A}$, $I_E=0$
BVCEO	Collector-Emitter Breakdown Voltage	250			V	$I_C=1\text{mA}$, $I_B=0$
BVEBO	Emitter-Base Breakdown Voltage	5			V	$I_E=10\text{ }\mu\text{A}$, $I_C=0$
ICBO	Collector Cut-off Current			10	nA	$V_{\text{CB}}=200\text{V}$, $I_E=0$
IEBO	Emitter-Base Cut-off Current			50	nA	$V_{\text{EB}}=5\text{V}$, $I_C=0$
HFE	DC Current Gain	50				$V_{\text{CE}}=20\text{V}$, $I_C=25\text{mA}$
$V_{\text{CE(sat)}}$	Collector- Emitter Saturation Voltage			0.6	V	$I_C=30\text{mA}$, $I_B=5\text{mA}$
Cre	Feedback Capacitance			1.6	pF	$V_{\text{CE}}=30\text{V}$, $I_C=0$, $f=1\text{MHz}$
f_T	Current Gain-Bandwidth Product	60			MHz	$V_{\text{CE}}=10\text{V}$, $I_C=10\text{mA}$, $f=100\text{MHz}$



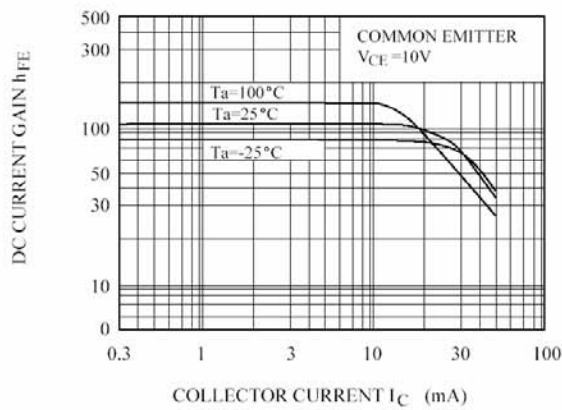
$I_C - V_{CE}$ (LOW VOLTAGE REGION)



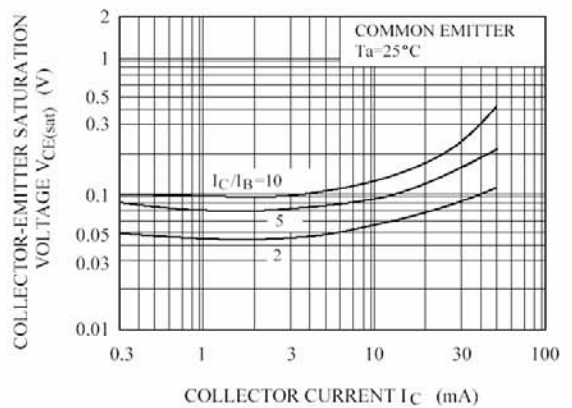
$h_{FE} - I_C$



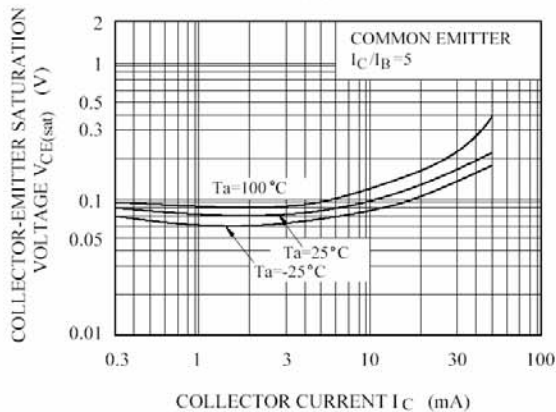
$h_{FE} - I_C$



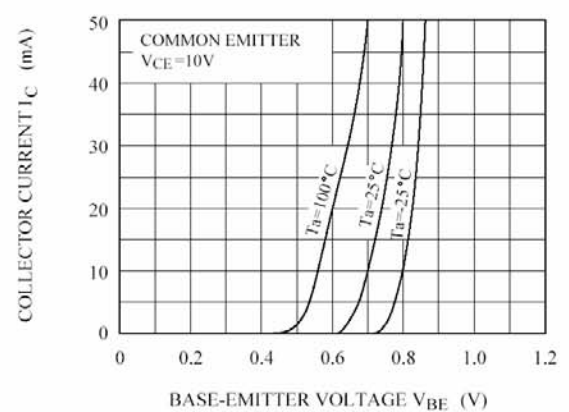
$V_{CE(sat)} - I_C$



$V_{CE(sat)} - I_C$



$I_C - V_{BE}$





Shantou Huashan Electronic Devices Co.,Ltd.

NPN SILICON TRANSISTOR

H422

