



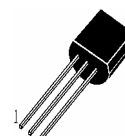
APPLICATIONS

Medium power amplifier.

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

T_{stg}	Storage Temperature	-55~150 $^{\circ}\text{C}$
T_j	Junction Temperature	150 $^{\circ}\text{C}$
P_C	Collector Dissipation	625mW
V_{CBO}	Collector-Base Voltage	40V
V_{CEO}	Collector-Emitter Voltage	32V
V_{EBO}	Emitter-Base Voltage	5V
I_C	Collector Current	500mA

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
BV_{CBO}	Collector-Base Breakdown Voltage	40			V	$I_C=100\mu\text{A}$, $I_E=0$
BV_{CEO}	Collector-Emitter Breakdown Voltage	32			V	$I_C=1\text{mA}$, $I_B=0$
BV_{EBO}	Emitter- Base Breakdown Voltage	5			V	$I_E=10\mu\text{A}$, $I_C=0$
I_{CBO}	Collector Cut-off Current			0.1	μA	$V_{\text{CB}}=40\text{V}$, $I_E=0$
I_{EBO}	Emitter Cut-off Current			0.1	μA	$V_{\text{EB}}=5\text{V}$, $I_C=0$
h_{FE}	DC Current Gain	70		240		$V_{\text{CE}}=1\text{V}$, $I_C=100\text{mA}$
$V_{\text{CE(sat)}}$	Collector- Emitter Saturation Voltage			0.25	V	$I_C=100\text{mA}$, $I_B=10\text{mA}$
f_{T}	Current Gain-Bandwidth Product		300		MHz	$V_{\text{CE}}=6\text{V}$, $I_E=-20\text{mA}$
C_{ob}	Output Capacacitance		7.0		pF	$V_{\text{CB}}=6\text{V}$, $I_E=0$, $f=1\text{MHz}$

h_{FE} Classification

0

Y

70—140

120—240



Fig. 1 $P_c - T_a$

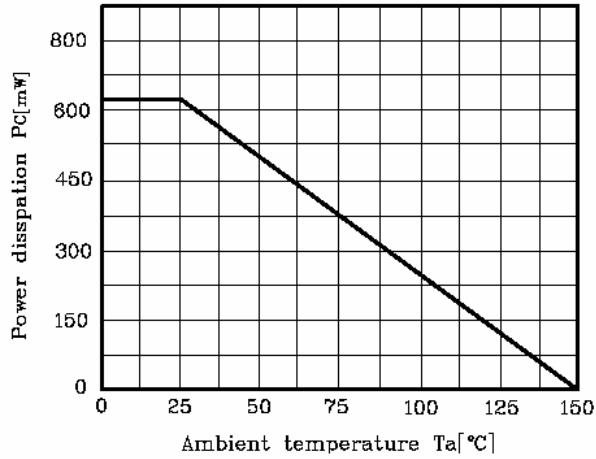


Fig. 2 $I_c - V_{BE}$

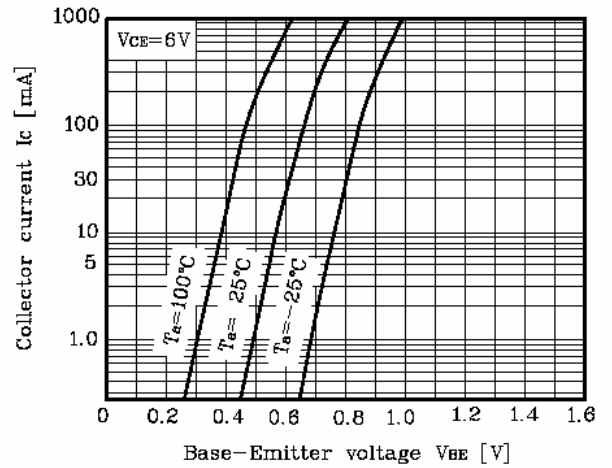


Fig. 3 $I_c - V_{CE}$

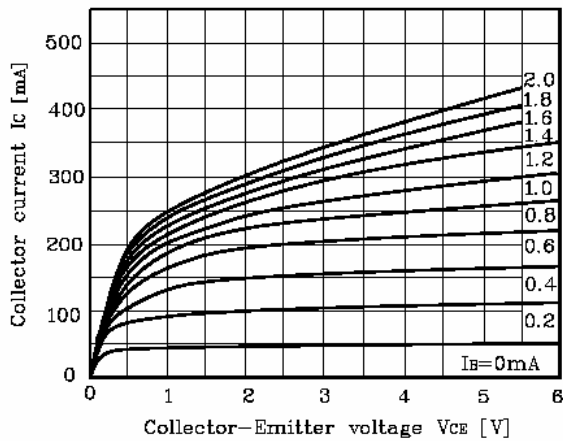


Fig. 4 $V_{CE(sat)} - I_c$

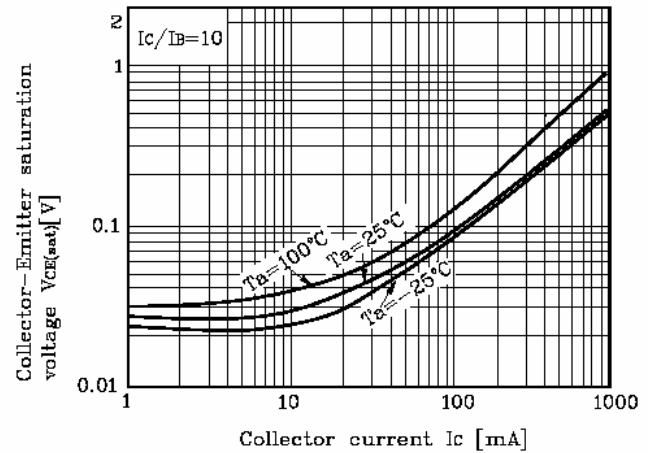


Fig. 5 $h_{FE} - I_c$

