

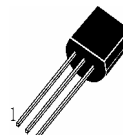
**SWITCHING AND AMPLIFIER APPLICATIONS**

Suitable for AF-Driver stages and low power output stages

ABSOLUTE MAXIMUM RATINGS ($T_a=25$)

T_{stg}	Storage Temperature.....	-55~150
T_j	Junction Temperature.....	150
P_C	Collector Dissipation.....	625mW
V_{CBO}	Collector-Base Voltage.....	50V
V_{CEO}	Collector-Emitter Voltage.....	45V
V_{EBO}	Emitter-Base Voltage.....	5V
I_C	Collector Current.....	800mA

TO-92



- 1 Collector , C
- 2 Base , B
- 3 Emitter , E

ELECTRICAL CHARACTERISTICS ($T_a=25$)

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
BV_{CBO}	Collector-Base Breakdown Voltage	50			V	$I_C=100\mu A$, $I_E=0$
BV_{CEO}	Collector-Emitter Breakdown Voltage	45			V	$I_C=10mA$, $I_B=0$
BV_{EBO}	Emitter-Base Breakdown Voltage	5			V	$I_E=100\mu A$, $I_C=0$
I_{CES}	Collector Cut-off Current		2	100	nA	$V_{CE}=45V$, $V_{BE}=0$
h_{FE}	DC Current Gain	100		630		$V_{CE}=1V$, $I_C=100mA$
$V_{CE(sat)}$	Collector- Emitter Saturation Voltage			0.7	V	$I_C=500mA$, $I_B=50mA$
$V_{BE(ON)}$	Base-Emitter On Voltage			1.2	V	$V_{CE}=1V$, $I_C=300mA$
f_T	Current Gain-Bandwidth Product		100		MHz	$V_{CE}=5V$, $I_C=10mA$
C_{cbo}	Collector-Base Capacitance		12		pF	$V_{CB}=10V$, $I_E=0$ $F=1MHz$

 h_{FE} Classification

16	25	40
100—250	160—400	250—630

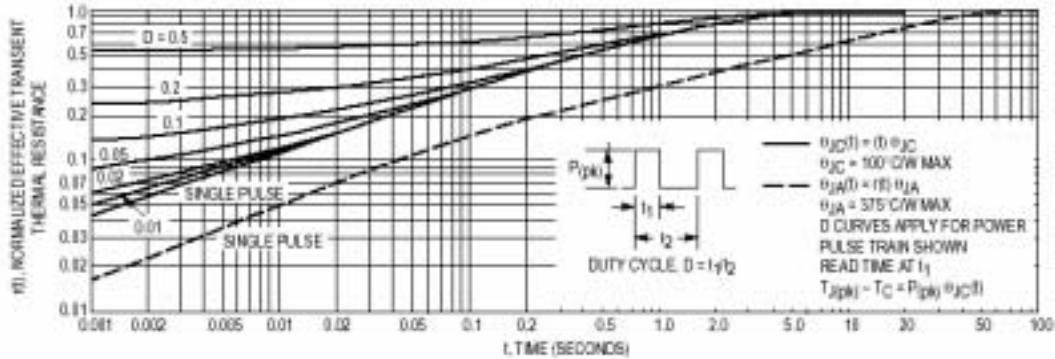


Figure 1. Thermal Response

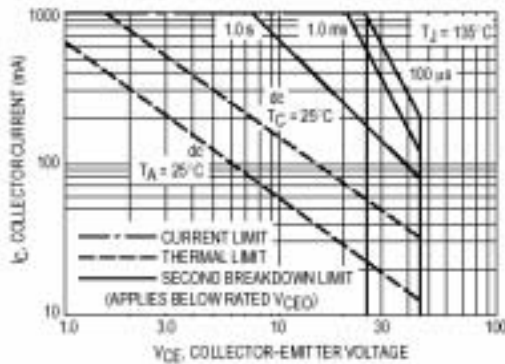


Figure 2. Active Region — Safe Operating Area

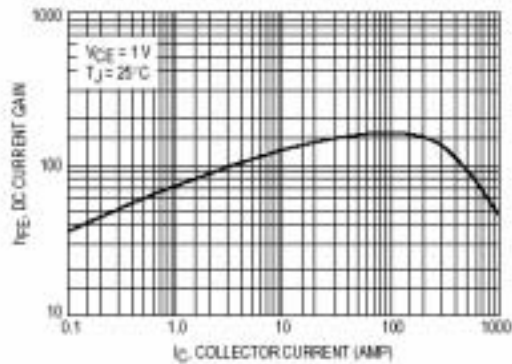


Figure 3. DC Current Gain

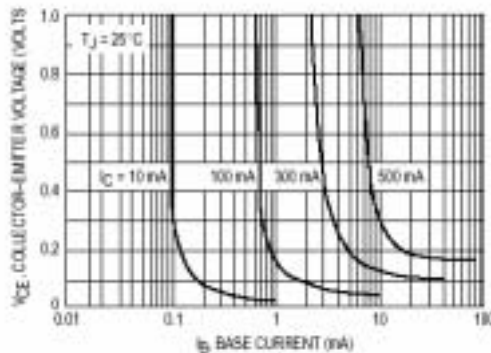


Figure 4. Saturation Region

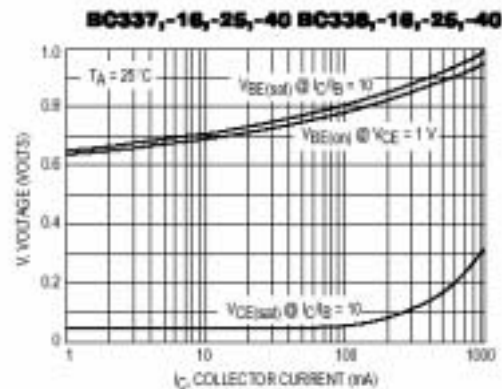


Figure 5. "On" Voltages

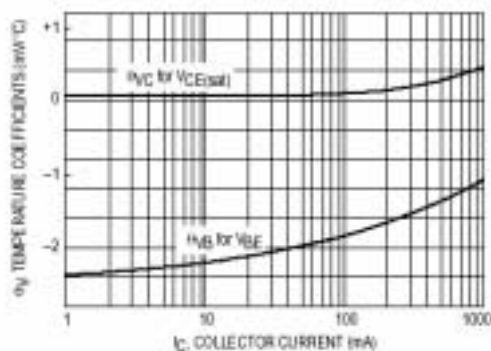


Figure 6. Temperature Coefficients

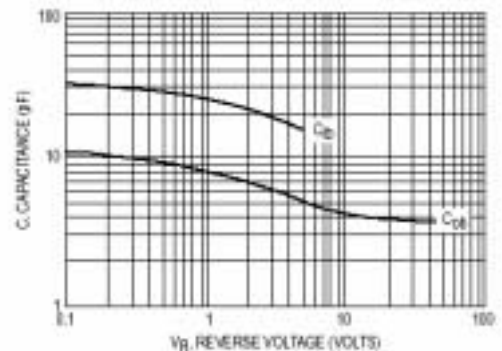


Figure 7. Capacitances