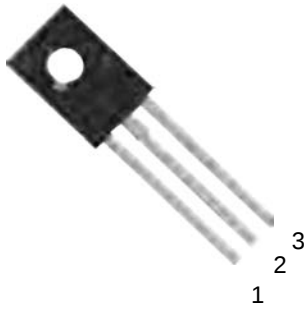


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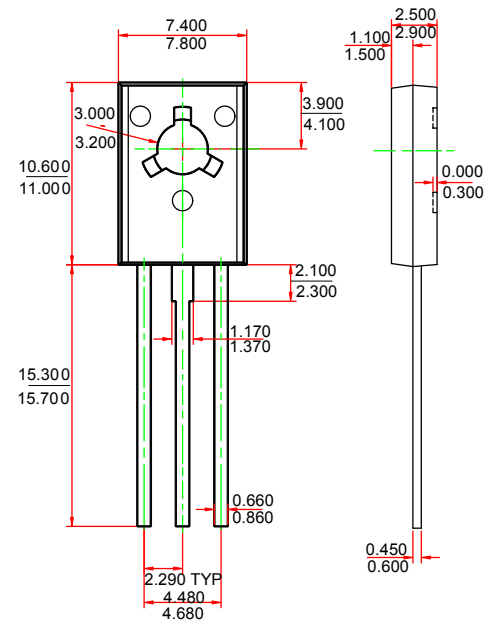
1. EMITTER
2. COLLECTOR
3. BASE

Features

- ✧ Power dissipation

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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current -Continuous	3	A
P_D	Collector Power Dissipation	1.25	W
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55-150	$^{\circ}\text{C}$



Dimensions in inches and (millimeters)

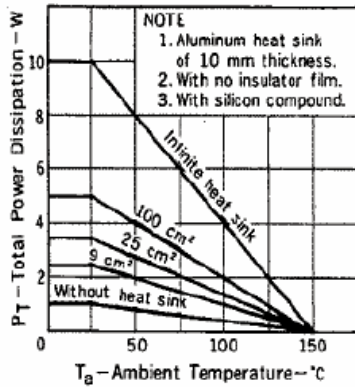
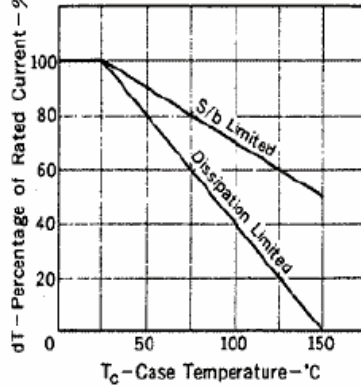
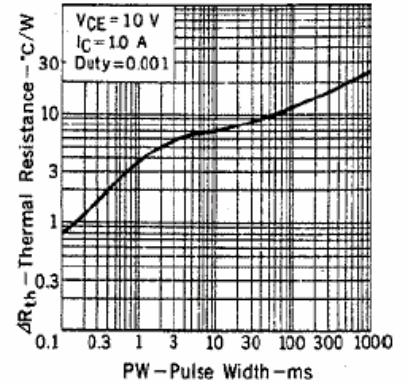
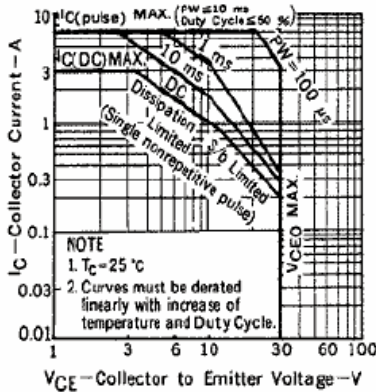
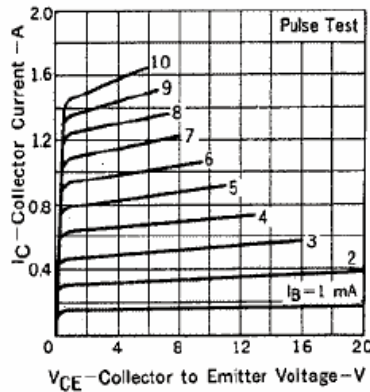
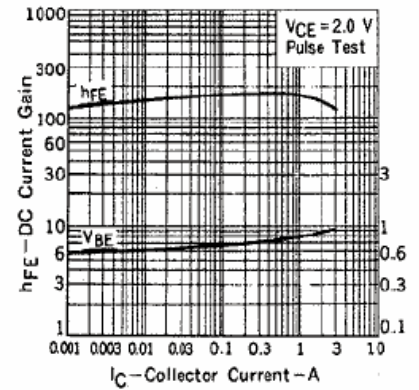
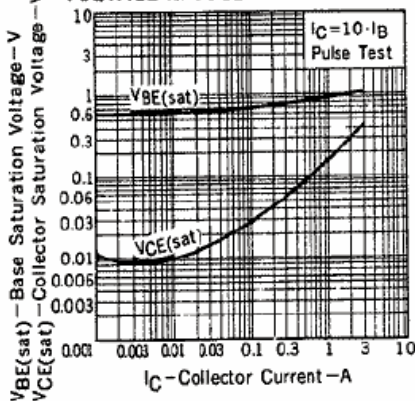
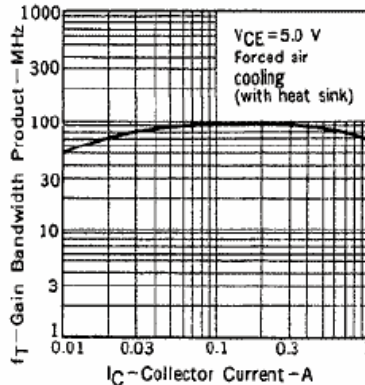
ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V(BR)_{CBO}$	$I_C = 100\mu\text{A}$, $I_E=0$	40			V
Collector-emitter breakdown voltage	$V(BR)_{CEO}$	$I_C = 10\text{mA}$, $I_B=0$	30			V
Emitter-base breakdown voltage	$V(BR)_{EBO}$	$I_E = 100\mu\text{A}$, $I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB} = 40\text{ V}$, $I_E=0$			1	μA
Collector cut-off current	I_{CEO}	$V_{CE} = 30\text{ V}$, $I_B=0$			10	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 6\text{ V}$, $I_C=0$			1	μA
DC current gain	h_{FE}	$V_{CE} = 2\text{ V}$, $I_C = 1\text{A}$	60		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 2\text{A}$, $I_B = 0.2\text{ A}$			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 2\text{A}$, $I_B = 0.2\text{ A}$			1.5	V
Transition frequency	f_T	$V_{CE} = 5\text{V}$, $I_C=0.1\text{A}$ $f = 10\text{MHz}$		90		MHz

CLASSIFICATION OF h_{FE}

Rank	R	O	Y	GR
Range	60-120	100-200	160-320	200-400

Typical Characteristics

TOTAL POWER DISSIPATION vs. AMBIENT TEMPERATURE

DERATING CURVES FOR ALL TYPES

THERMAL RESISTANCE vs. PULSE WIDTH

SAFE OPERATING AREAS

COLLECTOR CURRENT vs. COLLECTOR TO EMITTER VOLTAGE

DC CURRENT GAIN, BASE TO EMITTER VOLTAGE vs. COLLECTOR CURRENT

BASE AND COLLECTOR SATURATION VOLTAGE vs. COLLECTOR CURRENT

GAIN BANDWIDTH PRODUCT vs. COLLECTOR CURRENT

INPUT AND OUTPUT CAPACITANCE vs. REVERSE VOLTAGE
