

**TRIPLE DIFFUSED PLANER TYPE
HIGH POWER DARLINGTON
INDUSTRIAL USE POWER SUPPLY**

■ **Features**

- High D.C. current gain
- Excellent linearity in hFE
- Excellent safe operating area
- High reliability

■ **Applications**

- Color & B/W TV power supply
- Active power filter
- Industrial use power supply (series regulator)
- General purpose power amplifiers

■ **Maximum ratings and characteristics**

- Absolute maximum ratings (Tc=25°C unless otherwise specified)

Item	Symbol	Ratings	Unit
Collector-Base voltage	V _{CB0}	150	V
Collector-Emitter voltage	V _{CE0}	100	V
Emitter-Base voltage	V _{EB0}	6	V
Collector current	I _C	5	A
Base current	I _B	0.5	A
Collector power dissipation	P _C	30	W
Operating junction temperature	T _j	+150	°C
Storage temperature	T _{stg}	-55 to +150	°C

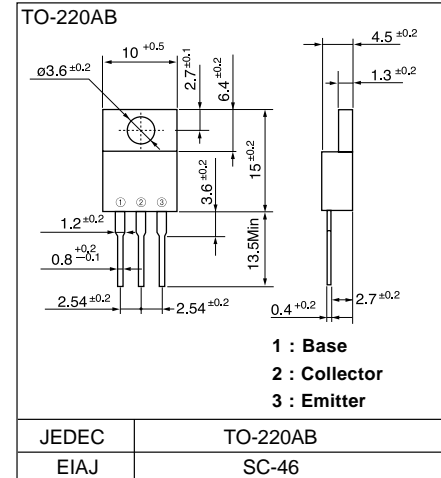
- Electrical characteristics (T_c =25°C unless otherwise specified)

Item	Symbol	Test Conditions	Min.	Typ.	Max.	Units
Collector-Base voltage	V _{CB0}	I _{CBO} = 1mA	150			V
Collector-Emitter voltage	V _{CE0}	I _{CEO} = 10mA	100			V
Emitter-Base voltage	V _{EB0}	I _{EB0} = 1mA	6			V
Collector-Base leakage current	I _{CBO}	V _{CB0} = 150V			1.0	mA
Emitter-Base leakage current	I _{EB0}	V _{EB0} = 6V			1.0	mA
D.C. current gain	h _{FE}	I _C = 1A, V _{CE} = 4V	700			
Collector-Emitter saturation voltage	V _{CE(Sat)}	I _C = 1.5A, I _B = 50mA			1.5	V
Base-Emitter saturation voltage	V _{BE(Sat)}				2.0	V

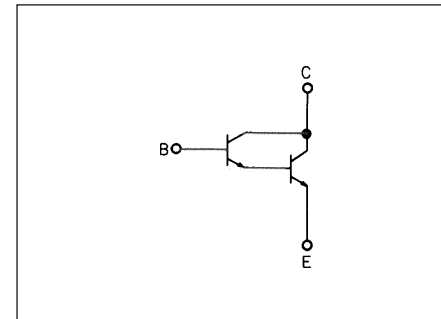
- Thermal characteristics

Item	Symbol	Test Conditions	Min.	Typ.	Max.	Units
Thermal resistance	R _{th(j-c)}	Junction to case			4.1	°C/W

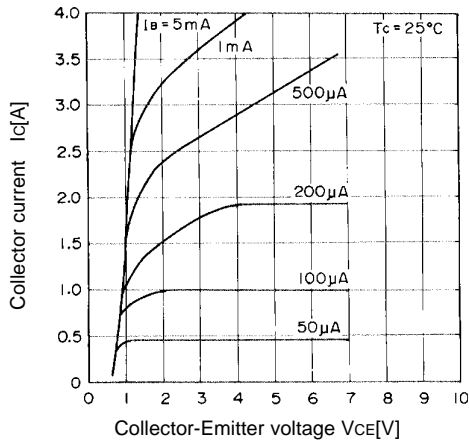
■ **Outline Drawings**



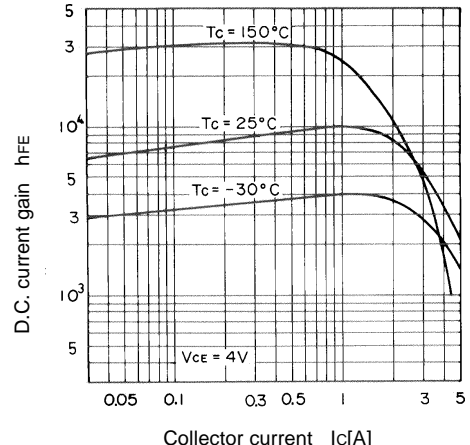
■ **Equivalent Circuit Schematic**



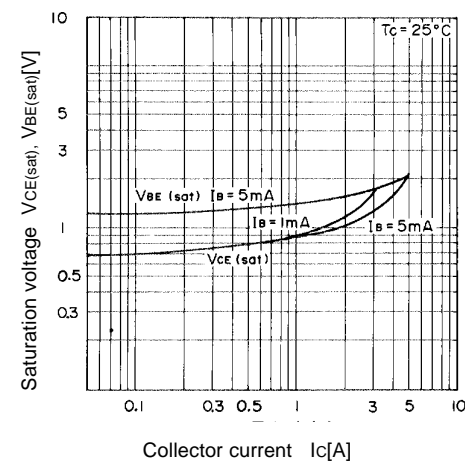
Characteristics



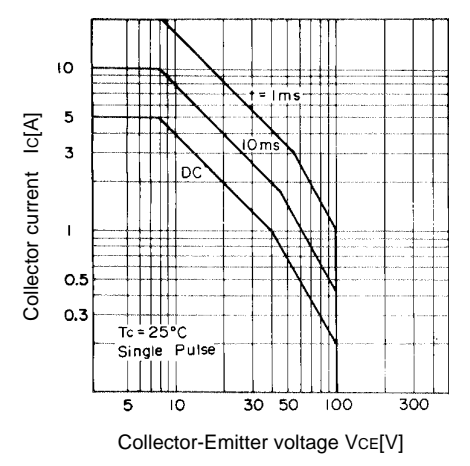
Collector Output Characteristics



DC Current Gain



Base and Collector Saturation Voltage



Safe Operating Area