2SD982

FUJI POWER TRANSISTOR

TRIPLE DIFFUSED PLANER TYPE
ULTRA HIGH β TRANSISTOR
INDUSTRIAL USE POWER SUPPLY

■ Features

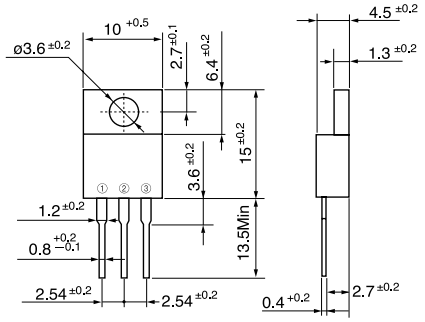
- **Ultra high β**
- **Excellent linearity in h_{FE}**
- **Excellent safe operating area**
- **High reliability**

■ Applications

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

■ Outline Drawings

TO-220AB



1 : Base
2 : Collector
3 : Emitter

JEDEC	TO-220AB
EIAJ	SC-46

■ Maximum ratings and characteristics

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

Item	Symbol	Ratings	Unit
Collector-Base voltage	V_{CBO}	200	V
Collector-Emitter voltage	V_{CEO}	180	V
Emitter-Base voltage	V_{EBO}	6	V
Collector current	I_C	5	A
Base current	I_B	0.5	A
Collector power disspation	P_C	40	W
Operating junction temperature	T_j	+150	℃
Storage temperature	T_{stg}	-55 to +150	℃

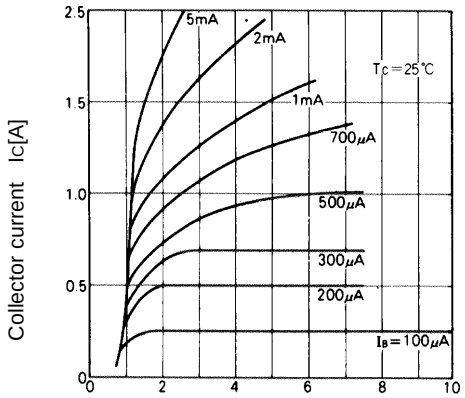
● **Electrical characteristics (T_C =25°C unless otherwise specified)**

Item	Symbol	Test Conditions	Min.	Typ.	Max.	Units
Collector-Base voltage	V_{CBO}	I_{CBO} = 1mA	200			V
Collector-Emitter voltage	V_{CEO}	I_{CEO} = 10mA	180			V
Emitter-Base voltage	V_{EBO}	I_{EBO} = 1mA	6			V
Collector-Base leakage current	I_{CBO}	V_{CBO} = 200V			1.0	mA
Emitter-Base leakage current	I_{EBO}	V_{EBO} = 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

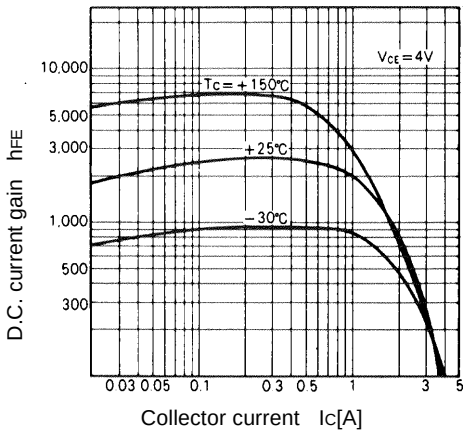
● **Thermal characteristics**

Item	Symbol	Test Conditions	Min.	Typ.	Max.	Units
Thermal resistance	$R_{th(j-c)}$	Junction to case			3.1	°C/W

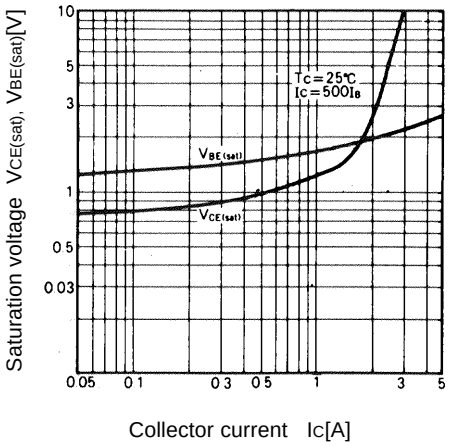
Characteristics



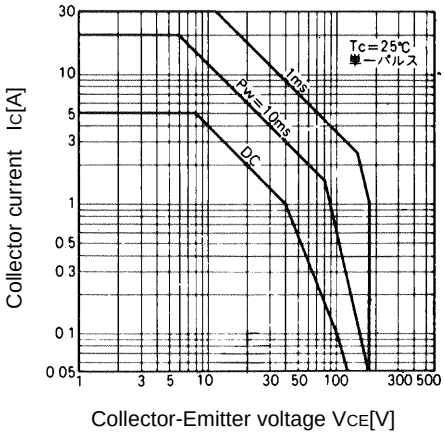
Collector Output Characteristics



DC Current Gain



Base and Collector Saturation Voltage



Safe Operating Area