

TRIPLE DIFFUSED PLANER TYPE
 HIGH POWER DARLINGTON
 HIGH VOLTAGE, SWITCHING

Features

- High D.C. current gain
- Low saturation voltage
- Excellent safe operating area
- High reliability

Applications

- Electronic ignitor
- Relay & solenoid drivers
- Switching regulators
- Motor controls

Maximum ratings and characteristics

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

Item	Symbol	Ratings	Unit
Collector-Base voltage	V _{CB0}	400	V
Collector-Emitter voltage	V _{CEO}	400	V
Collector-Emitter voltage	V _{CEO(SUS)}	350	V
Emitter-Base voltage	V _{EBO}	15	V
Collector current	I _C	6	A
Base current	I _B	0.3	A
Collector power dissipation	P _C	40	W
Operating junction temperature	T _j	+150	°C
Storage temperature	T _{stg}	-45 to +150	°C

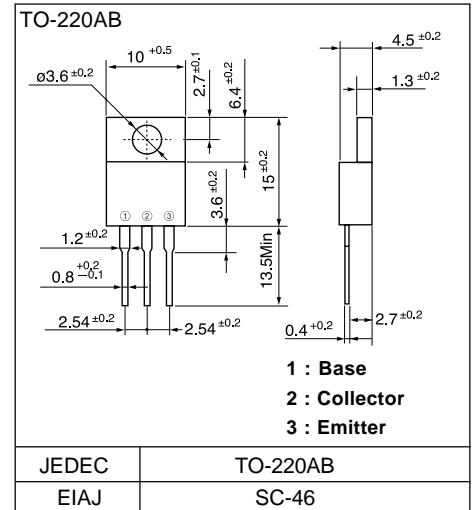
Electrical characteristics (T_c =25°C unless otherwise specified)

Item	Symbol	Test Conditions	Min.	Typ.	Max.	Units
Collector-Base voltage	V _{CB0}	I _{CB0} = 0.1mA	400			V
Collector-Emitter voltage	V _{CEO}	I _{CEO} = 0.1mA	400			V
Collector-Emitter voltage	V _{CEO(SUS)}	I _C = 1A	350			V
Emitter-Base voltage	V _{EBO}	I _{EBO} = 100mA	15			V
Collector-Base leakage current	I _{CB0}	V _{CB0} = 400V			0.1	mA
Emitter-Base leakage current	I _{EBO}	V _{EBO} = 15V			100	mA
D.C. current gain	h _{FE}	I _C = 4A, V _{CE} = 1.5V	400			
Collector-Emitter saturation voltage	V _{CE(Sat)}	I _C = 4A, I _B = 10mA			1.5	V
Base-Emitter saturation voltage	V _{BE(Sat)}				2.0	V
*1	t _{on}	I _C = 4A, I _{B1} = 40mA			1.0	μs
Switching time	t _{stg}	I _{B2} = -40mA, R _L = 10 ohm			12.0	μs
	t _f	P _w = 20μs Duty=<2%			6.0	μs

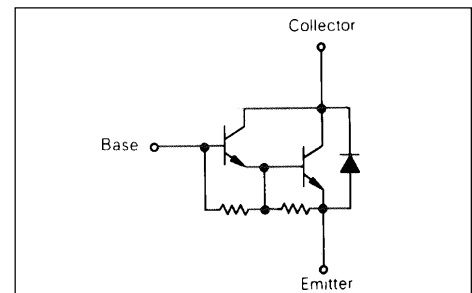
Thermal characteristics

Item	Symbol	Test Conditions	Min.	Typ.	Max.	Units
Thermal resistance	R _{th(j-c)}	Junction to case			3.0	°C/W

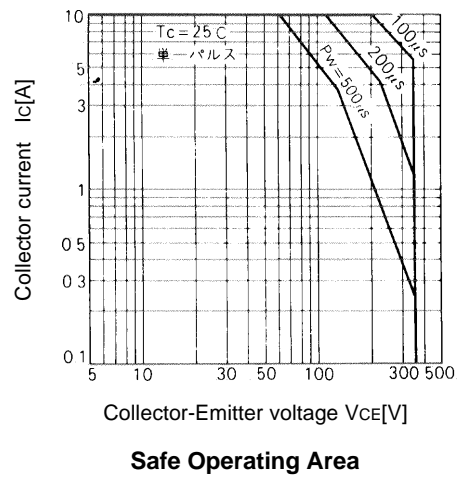
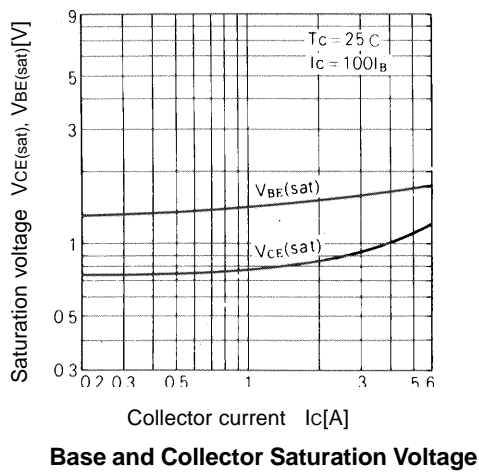
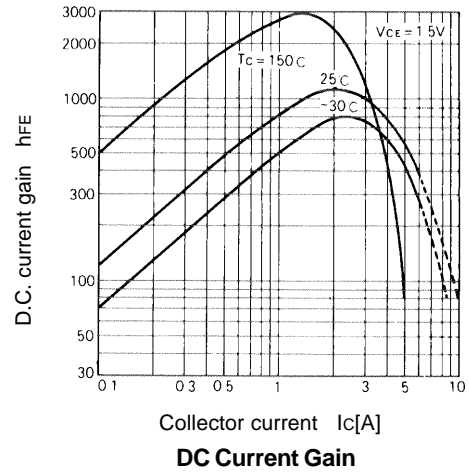
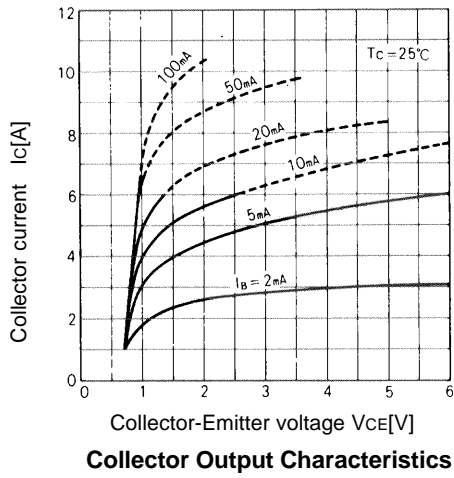
Outline Drawings



Equivalent Circuit Schematic



Characteristics



*1 Switching Time Test Circuit

