ET191

FUJI POWER TRANSISTOR

TRIPLE DIFFUSED PLANER TYPE
HIGH VOLTAGE, HIGH SPEED SWITCHING

■ Features

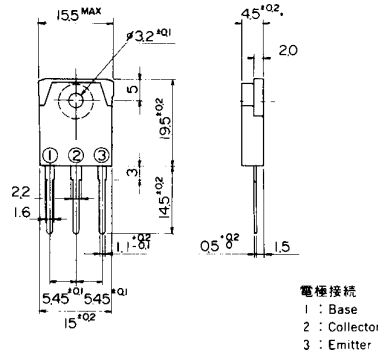
- **High D.C. current gain**
- **High reliability**

■ Applications

- **Switching regulators**
- **General purpose power amplifiers**

■ Outline Drawings

TO-3P



JEDEC	-
EIAJ	SC-65

■ Maximum ratings and characteristic

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

Item	Symbol	Rating	Unit
Collector-Base voltage	V_{CBO}	600	V
Collector-Emitter voltage	V_{CEO}	600	V
Collector-Emitter voltage	$V_{CEO(SUS)}$	450	V
Emitterr-Base voltage	V_{EBO}	6	V
Collector current	I_C	12	A
Base current	I_B	1	A
Collector power disspation	P_C	100	W
Operating junction temperature	T_j	+150	℃
Storage temperature	T_{stg}	-55 to +150	℃

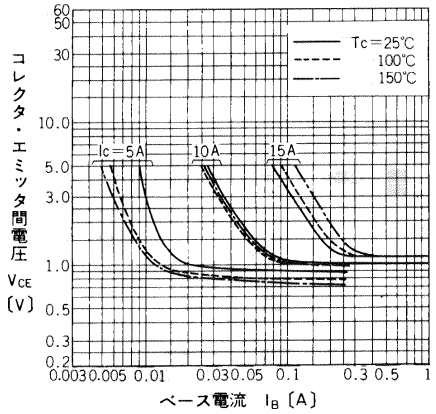
● Electrical characteristics (T_C =25°C unless otherwise specified)

Item	Symbol	Test Conditions	Min.	Typ.	Max.	Units
Collector-Base voltage	V_{CBO}	I_{CBO} = 1mA	600			V
Collector-Emitter voltage	V_{CEO}	I_{CEO} = 1mA	600			V
Collector-Emitter voltage	$V_{CEO(SUS)}$	I_C = 1A	450			V
Emitter-Base voltage	V_{EBO}	I_{EBO} = 200mA	6			V
Collector-Base leakage current	I_{CBO}	V_{CBO} = 600V			1.0	mA
Emitter-Base leakage current	I_{EBO}	V_{EBO} = 6V			200	mA
D.C. current gain	h_{FE}	I_C = 12A, V_{CE} = 5V	100			
Collector-Emitter saturation voltage	$V_{CE(Sat)}$	I_C = 12A, I_B = 240mA			2.0	V
Base-Emitter saturation voltage	$V_{BE(Sat)}$				2.2	V
*1	t_{on}	I_C = 12A, I_{B1} = 240mA			1.5	µs
Switching time	t_{stg}	I_{B2} = -240mA, R_L = 20Ω			10	µs
	t_f	Pw = 20 µs Duty=<2%			2.0	µs

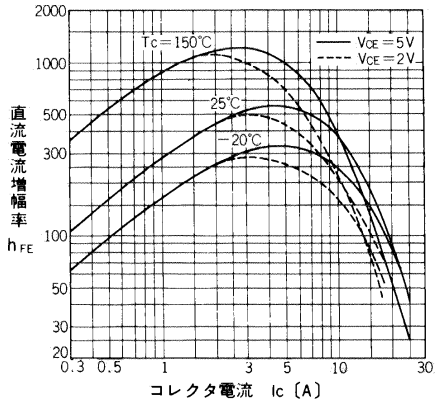
● Thermalcharacteristics

Item	Symbol	Test Conditions	Min.	Typ.	Max.	Units
Thermal resistance	$R_{th(j-c)}$	Junctionl to case			1.25	°C/W

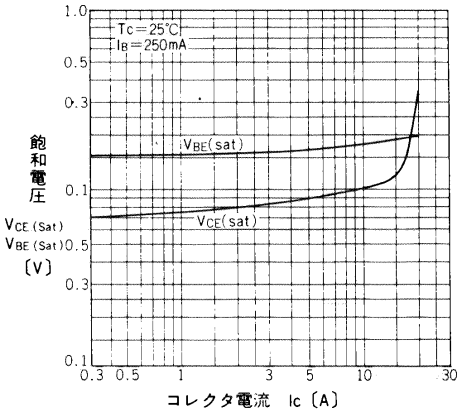
■ Characteristics



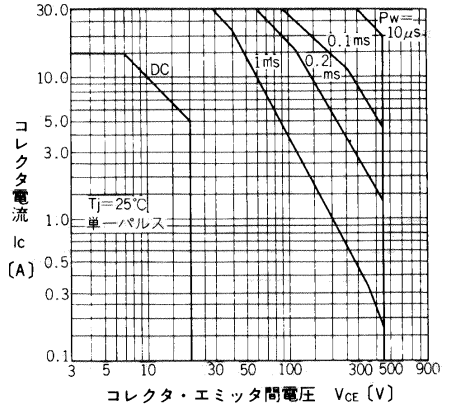
出力特性
Collector Output Characteristics



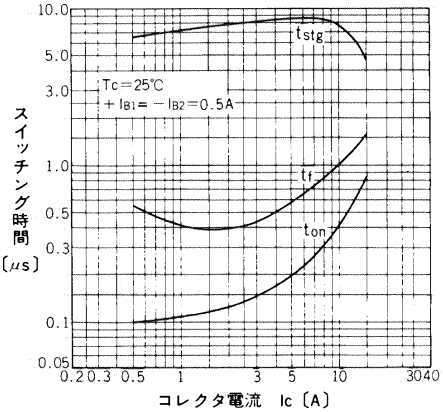
直流電流増幅率―コレクタ電流特性
DC Current Gain



飽和電圧―コレクタ電流特性
Base and Collector Saturation Voltage



安全動作領域特性
Safe Operating Area



スイッチング時間―コレクタ電流特性
Switching Time

スイッチングタイム測定回路
※) Switching Time Test Circuit