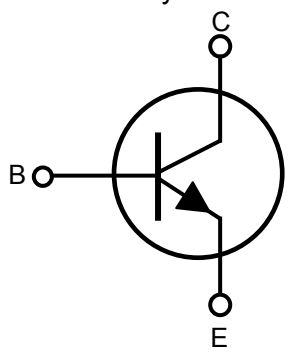
■ Product characteristics

V_{CBO}	300V
V_{CEO}	300V
I_C	18A

Symbol

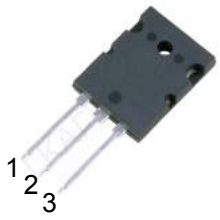


■ Applications

High-Fidelity Audio Output Amplifier
General Purpose Power Amplifier

■ Features

High Voltage : V_{CEO}=300V
Complement to 2SA1943



1:B 2:C 3:E

■ Absolute Maximum Ratings (T_C=25℃ unless otherwise specified)

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	BV_{CBO}	300	V
Collector-Emitter Voltage	BV_{CEO}	300	V
Emitter-Base Voltage	BV_{EBO}	5	V
Collector Current(DC)	I_C	18	A
Base Current	I_B	1.5	A
Total Device Dissipation(T_C=25°C)	P_D	180	W
Derate above 25°C		1.04	W/°C
Junction and Storage Temperature	T_J, T_{STG}	- 50 ~ +150	°C

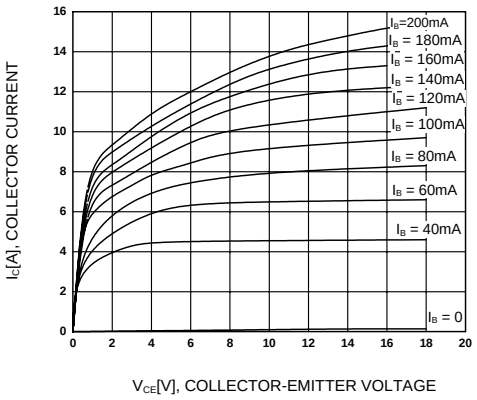
* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

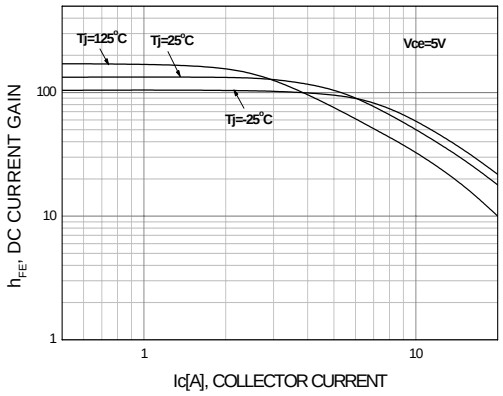
■ Electrical Characteristics (T_C=25℃ unless otherwise specified)

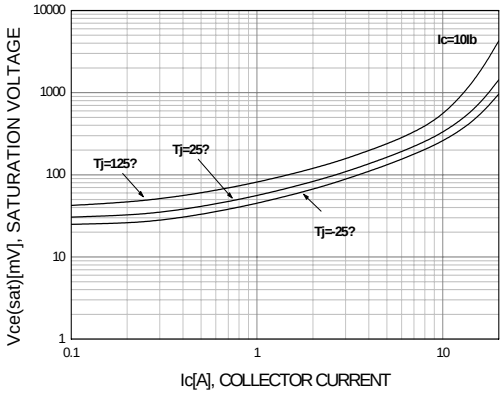
Parameter	Symbol	Test condition	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	I_C=5mA, I_E=0	300			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C=10mA, R_{BE}=∞	300			V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E=5mA, I_C=0	5			V
Collector Cut-off Current	I_{CBO}	V_{CB}=300V, I_E=0			5.0	μA
Emitter Cut-off Current	I_{EBO}	V_{EB}=5V, I_C=0			5.0	μA
DC Current Gain	h_{FE1}	V_{CE}=5V, I_C=1A	55		160	
DC Current Gain	h_{FE2}	V_{CE}=5V, I_C=7A	35	60		
Collector-Emitter Saturation Voltage	V_{CE}(sat)	I_C=8A, I_B=0.8A		0.4	3.0	V
Base-Emitter On Voltage	V_{BE}(on)	V_{CE}=5V, I_C=7A		1.0	1.5	V
Current Gain Bandwidth Product	f_T	V_{CE}=5V, I_C=1A		30		MHz
Output Capacitance	C_{ob}	V_{CB}=10V, f=1MHz		200		pF

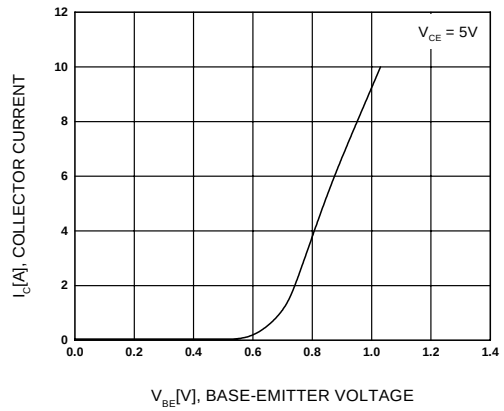
* Pulse Test: Pulse Width=20μs, Duty Cycle≤2%

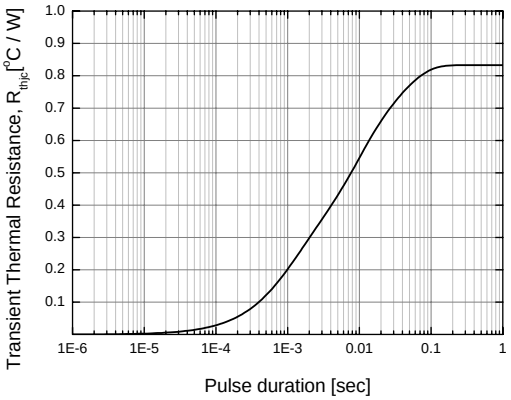
■ Typical Performance Characteristics

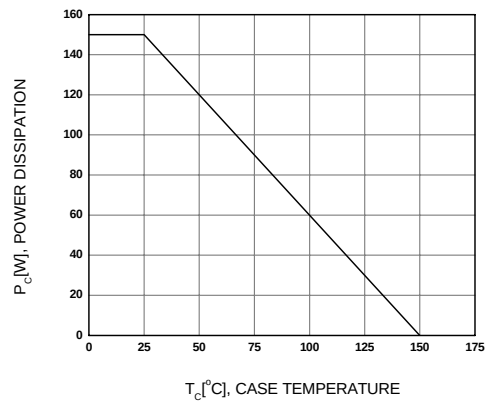












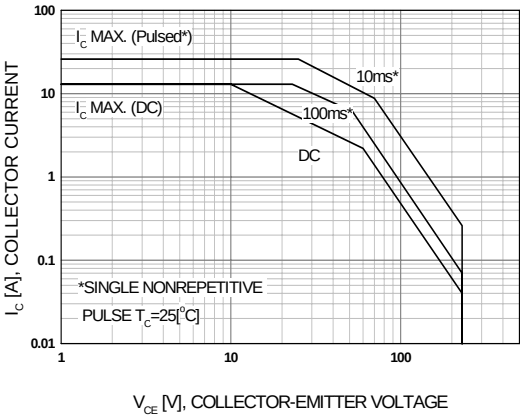


Figure 7. Power Derating

Figure 8. Safe Operating Area

■ TO-3PL Package mechanical data