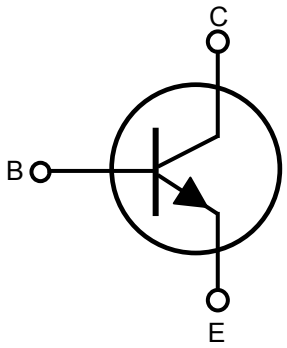
■ Product characteristics

V_{CBO}	140V
V_{CEO}	140V
I_C	10A

Symbol

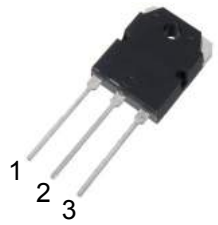


■ Applications

High-Fidelity Audio Output Amplifier
General Purpose Power Amplifier

■ Features

High Voltage : V_{CEO}= 140V
Complement to 2SA1941



1:B 2:C 3:E

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

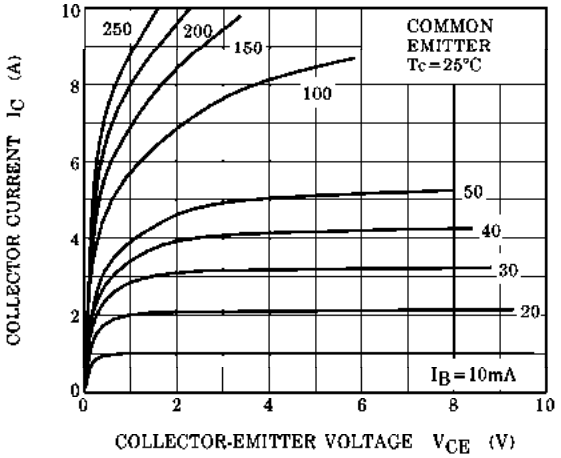
Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	140	V
Collector emitter voltage	V_{CEO}	140	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	10	A
Base current	I_B	1	A
Collector power dissipation	P	100	W
Operating junction temperature	T_J	+150	℃
Storage temperature	T_{SGT}	-40-+150	℃

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

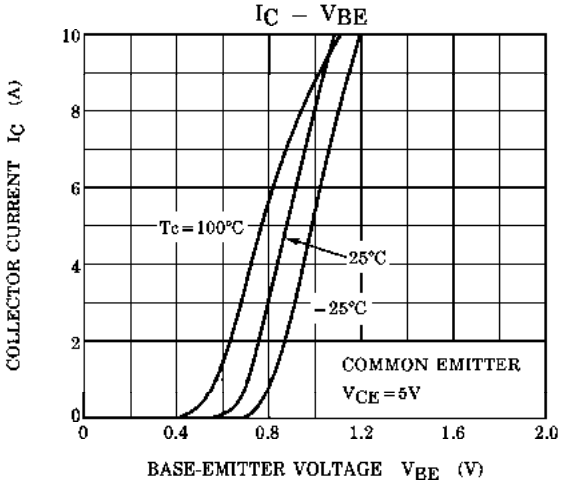
Parameter	Symbol	Test condition	Min	Typ	Max	Unit
Collector cut-off current	I_{CBO}	V_{CB}=140V I_E=0V	-	-	5	μA
Emitter cut-off current	I_{EBO}	V_{EB}=5V I_C=0V	-	-	5	μA
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_E=50mA, I_B=0	140	-	-	V
DC Current Gain	h_{FE1}	V_{CE}=5V, I_C=1A	55	-	160	
DC Current Gain	h_{FE2}	V_{CE}=5V, I_C=5A	35	83	-	
Collector-Emitter Saturation Voltage	V_{CE}(sat)	I_C=7A, I_B=0.7A	-	0.3	2.0	V
Base-Emitter On Voltage	V_{BE}(on)	V_{CE}=5V, I_C=5A	-	0.9	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	-	320	-	pF

■ Typical Performance Characteristics

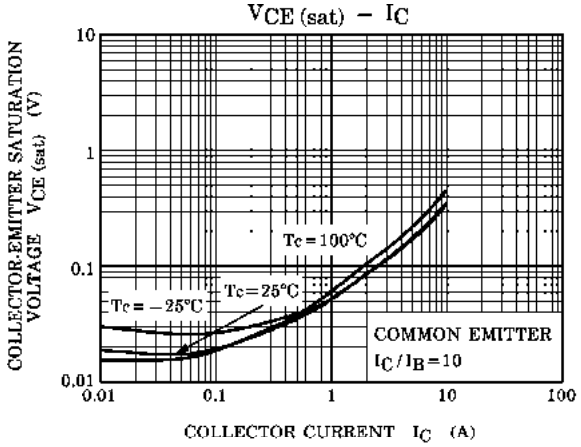
I_C – V_{CE}



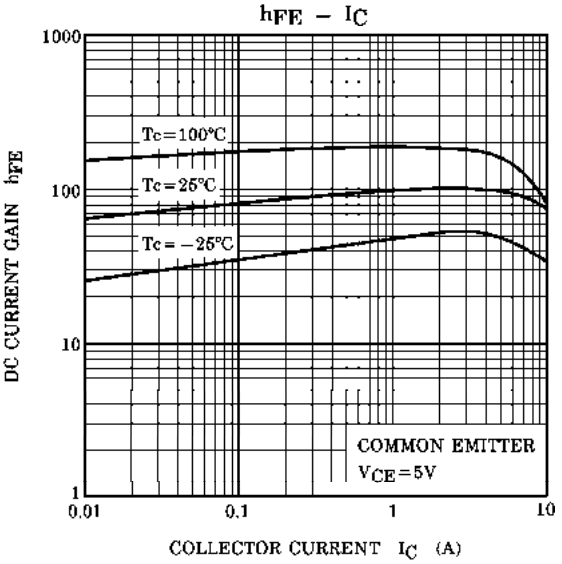
I_C – V_{BE}



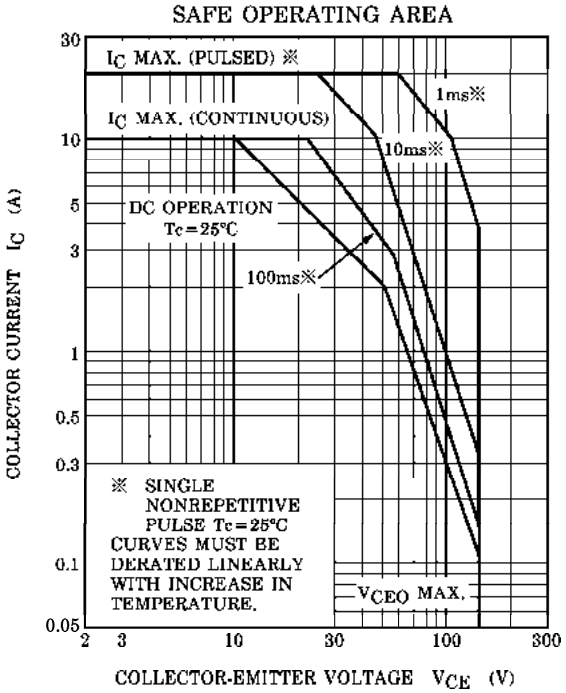
$V_{CE(sat)}$ – I_C



h_{FE} – I_C



SAFE OPERATING AREA



■ TO-3PN Package mechanical data