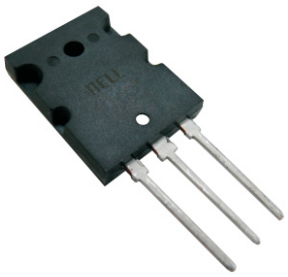
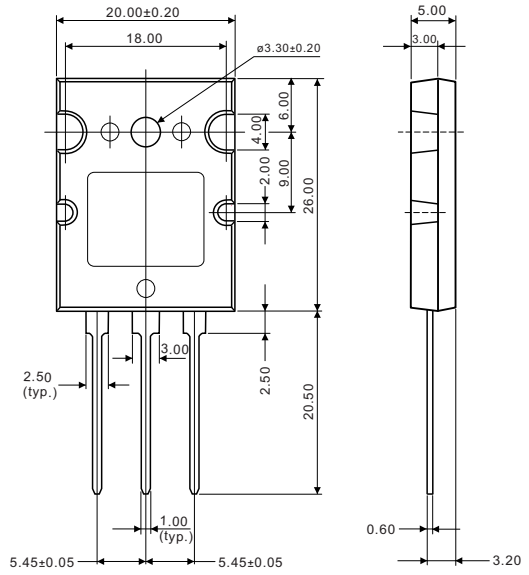
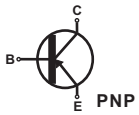
Silicon PNP triple diffusion planar transistor
-15A/-230V/150W



TO-3PL



1. BASE
2. COLLECTOR (HEAT SINK)
3. EMITTER



All dimensions in millimeters

FEATURES

- High breakdown voltage, V_{CEO} = -230V (min)
- Complementary to 2SC5200BL
- TO-3PL package which can be installed to the heat sink with one screw

APPLICATIONS

- Suitable for use in 100W high fidelity audio amplifier's output stage

ABSOLUTE MAXIMUM RATINGS (T_a = 25°C)				
SYMBOL	**PARAMETER**		**VALUE**	**UNIT**
V_{CBO}	Collector to base voltage		-230	V
V_{CEO}	Collector to emitter voltage		-230	
V_{EBO}	Emitter to base voltage		-5	
I_{CP}	Peak collector current $t_p \leq 5$ ms		-30	A
I_C	Collector current		-15	
I_B	Base current		-1.5	
P_C	Collector power dissipation	T_C= 25°C	150	W
T_j	Junction temperature		150	°C
T_{stg}	Storage temperature		-55 to 150	

THERMAL CHARACTERISTICS (T_C = 25°C)			
SYMBOL	**PARAMETER**	**VALUE**	**UNIT**
$R_{th(j-c)}$	Maximum thermal resistance, junction to case	1.10	°C/W

ELECTRICAL CHARACTERISTICS (T_a = 25°C)

SYMBOL	PARAMETER	CONDITIONS		VALUE			UNIT
				MIN.	TYP.	MAX.	
I_{CBO}	Collector cutoff current	V_{CBO} = -230V, I_E = 0				-5.0	μA
I_{EBO}	Emitter cutoff current	V_{EBO} = -5V, I_C = 0				-5.0	
$V_{(BR)CEO}$	Collector to emitter breakdown voltage	I_{CEO} = -50mA, I_B = 0		-230			V
V_{CBO}	Collector to base voltage	I_{CBO} = -100 μA		-230			
V_{EBO}	Emitter to base voltage	I_{EBO} = -100 μA		-5			
$h_{FE}1$	Forward current transfer ratio (DC current gain)	V_{CE} = -5V, I_C = -1A	Rank-R	55		110	
			Rank-O	80		160	
$h_{FE}2$		V_{CE} = -5V, I_C = -7A		35	60		
$V_{CE(sat)}$	Collector to emitter saturation voltage	I_C = -8A, I_B = -0.8A			-1.5	-3.0	V
V_{BE}	Base to emitter voltage	V_{CE} = -5V, I_C = -7A			-1.0	-1.5	
f_T	Transition frequency (Gain-Bandwidth product)	V_{CE} = -5V, I_C = -1A			30		MHz
C_{ob}	Collector output capacitance	V_{CB} = -10V, I_E = 0, f = 1MHz			360		pF

ORDERING INFORMATION SCHEME

2SA 1943 BL - R

Transistor series

PNP Type

Current & Voltage rating, I_C & V_{CEO}

-15A / -230V

Package type

BL = TO-3PL

DC current gain rank, $h_{FE}1$

R = 55 ~ 110

O = 80 ~ 160

Fig.1 I_C - V_{CE}

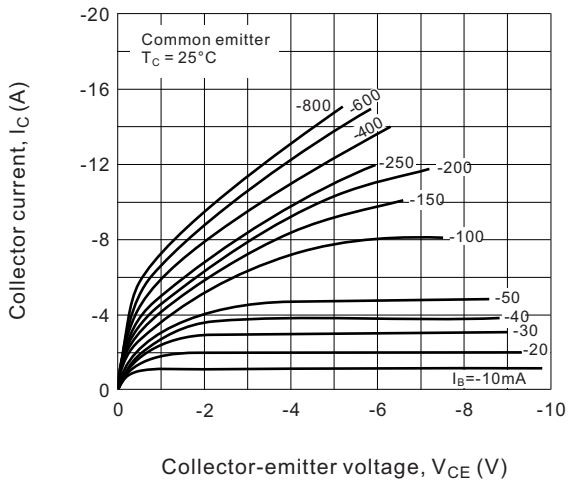


Fig.2 $V_{CE\ (sat)}$ - I_C

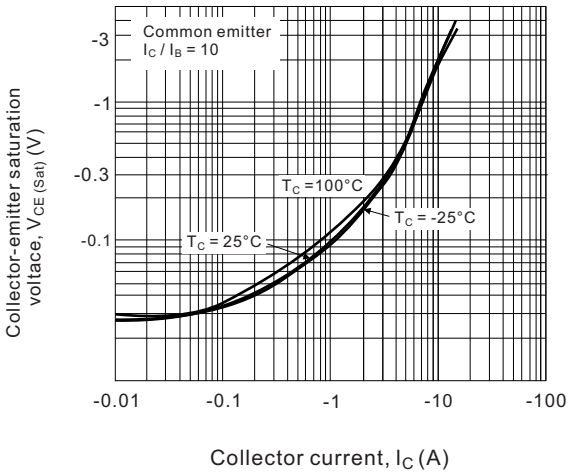


Fig.3 I_C-V_{BE}

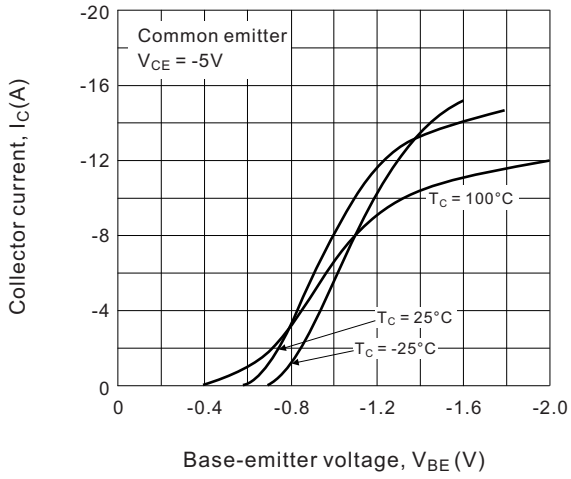


Fig.4 DC current gain

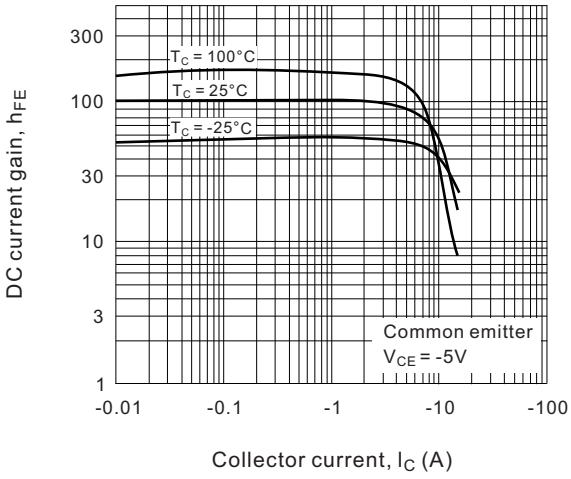


Fig.5 Safe operating area