



DESCRIPTION

The GCA1943T is a triple-diffused PNP power transistor, specifically designed for high-fidelity output stages in audio power amplifiers with output power up to 100W RMS.

FEATURES

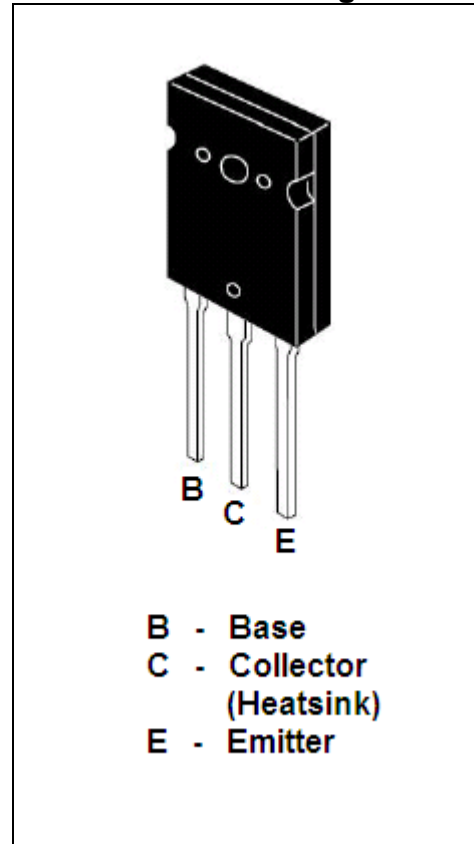
- High collector-emitter voltage.
- High gain.
- Complementary to GCA5200
- TO-3PL package for either screw or clip-on mounting to external heatsink.
- Low distortion

APPLICATIONS

- High-Fidelity Audio Amplifiers up to 100W RMS output power

PIN-OUT

TO-3PL Package



**ABSOLUTE MAXIMUM RATINGS (T_a=25°C)**

PARAMETER		VALUE	UNIT
V _{CEO,MAX}	Collector-Emitter Voltage	-230	V
V _{CBO,MAX}	Collector-Base Voltage	-230	V
V _{EBO,MAX}	Emitter-Base Voltage	-5	V
I _{B,MAX}	Base Current	-1.5	A
I _{C,MAX}	Continuous Collector Current	-15	A
P _{c,MAX}	Collector Power dissipation	150	W

TEMPERATURE RATINGS (T_a=25°C)

PARAMETER		VALUE	UNIT
T _{j,MAX}	Junction Temperature	150	°C
T _{STG}	Storage Temperature	-55~150	°C

DC CHARACTERISTICS (T_a=25°C)

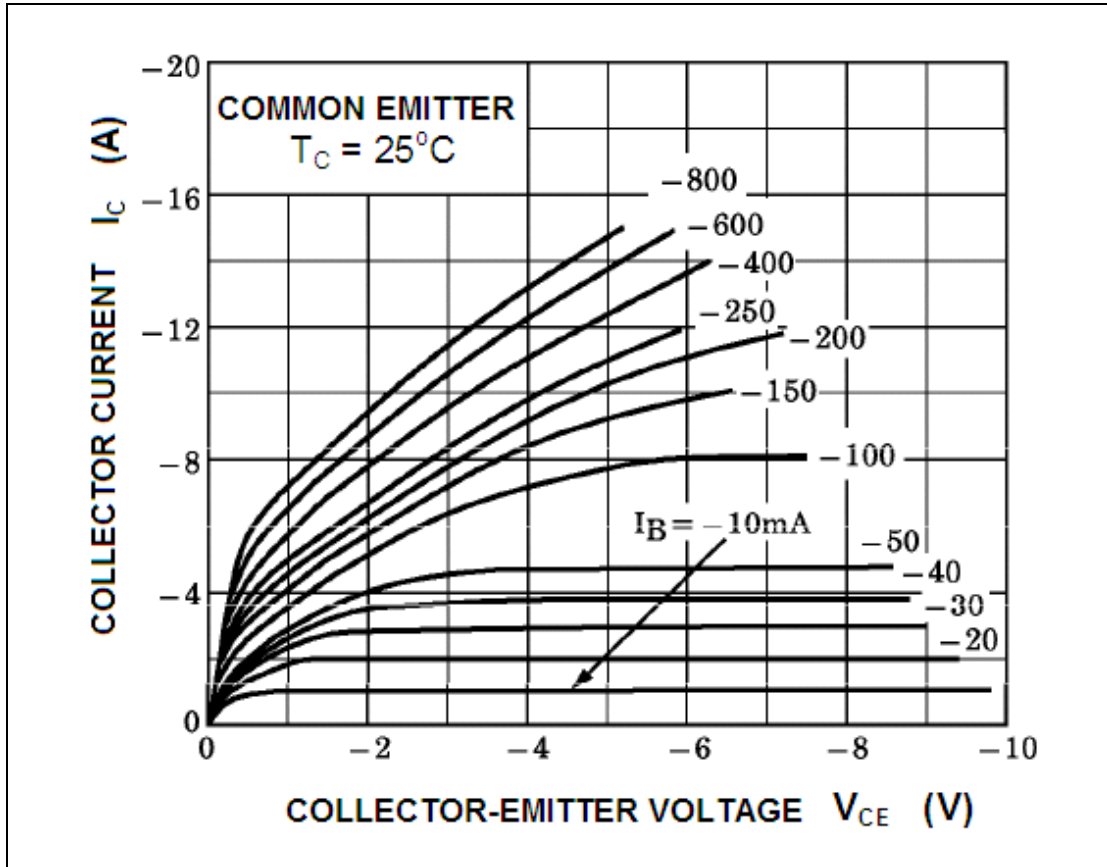
PARAMETER		TEST CONDITION	MIN	MAX	UNIT
V _{CEO}	Max Collector-Emitter Voltage	I _C =-50 mA	-230		V
I _{CBO}	Collector Cut-off Current	V _{CB} =-230V		-5	uA
I _{EBO}	Emitter Cut-off Current	V _{EB} =-5V		-5	uA
V _{CE}	Collector-Emitter Saturation Voltage	I _C =-8A I _B =-0.8A		-3	V
V _{BE}	Base-Emitter Saturation Voltage	I _C =-7A V _{CE} =-5V		-1.5	V

AC CHARACTERISTICS (T_a=25°C)

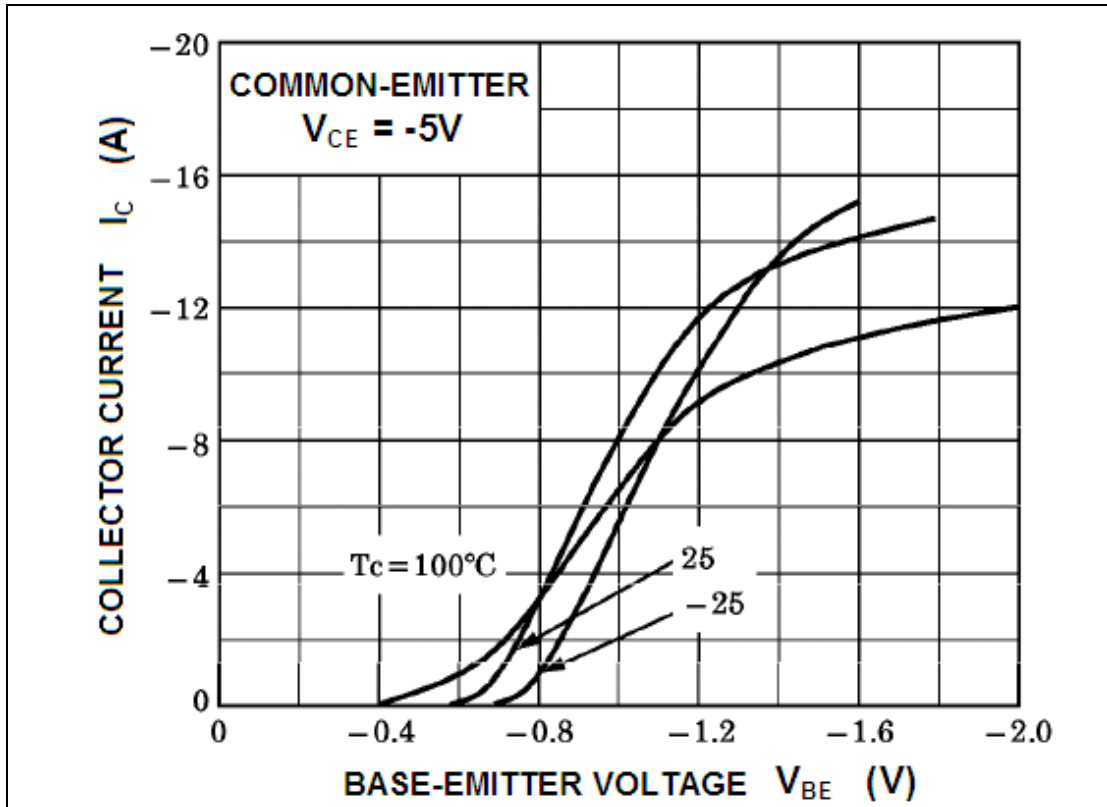
PARAMETER		TEST CONDITION	MIN	MAX	UNIT
f _T	Transition frequency	I _C =-1A V _{CE} =-5V		30	MHz
COB	Collector Output Capacitance	V _{CB} =-10V, f=1MHZ		360	pF
h _{FE}	Current Gain	I _C =-1A V _{CE} =-5V	55	160	-
		I _C =-7A V _{CE} =-5V	35	60	-



COLLECTOR CURRENT VS COLLECTOR-EMITTER VOLTAGE

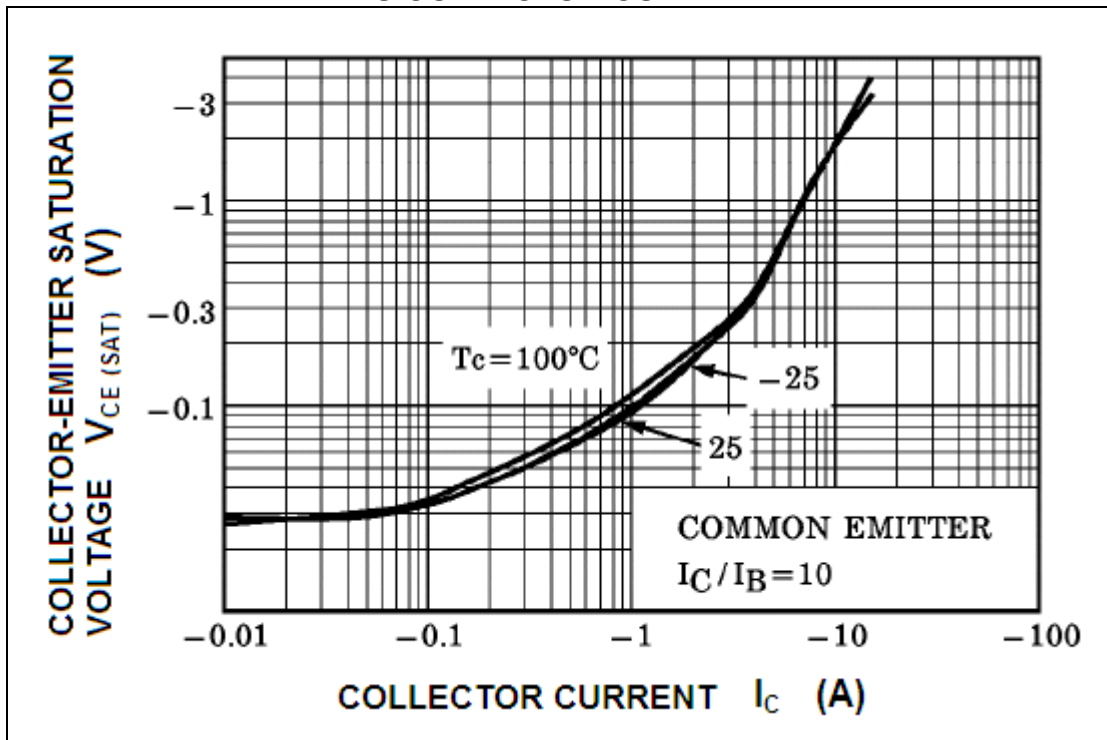


COLLECTOR CURRENT VS BASE-EMITTER VOLTAGE

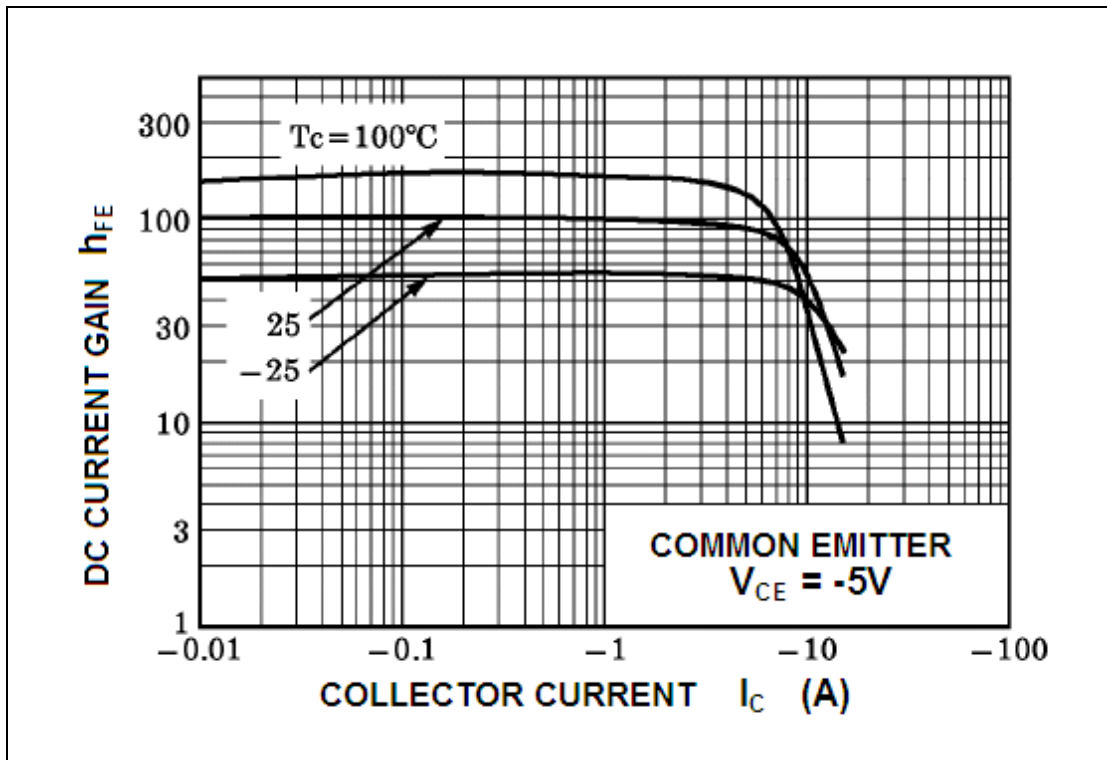




COLLECTOR-EMITTER SATURATION VOLTAGE VS COLLECTOR CURRENT

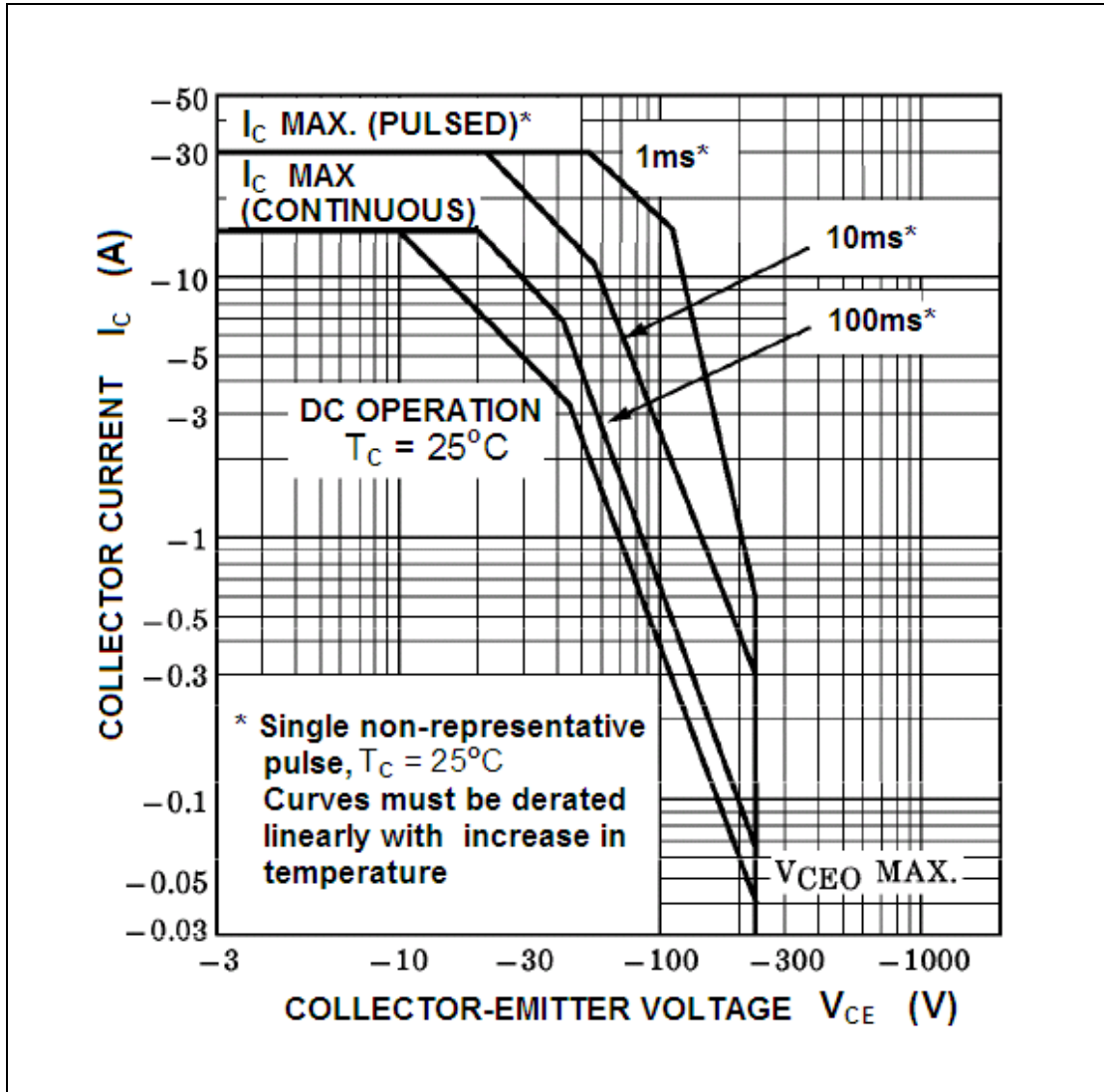


DC CURRENT GAIN VS COLLECTOR CURRENT





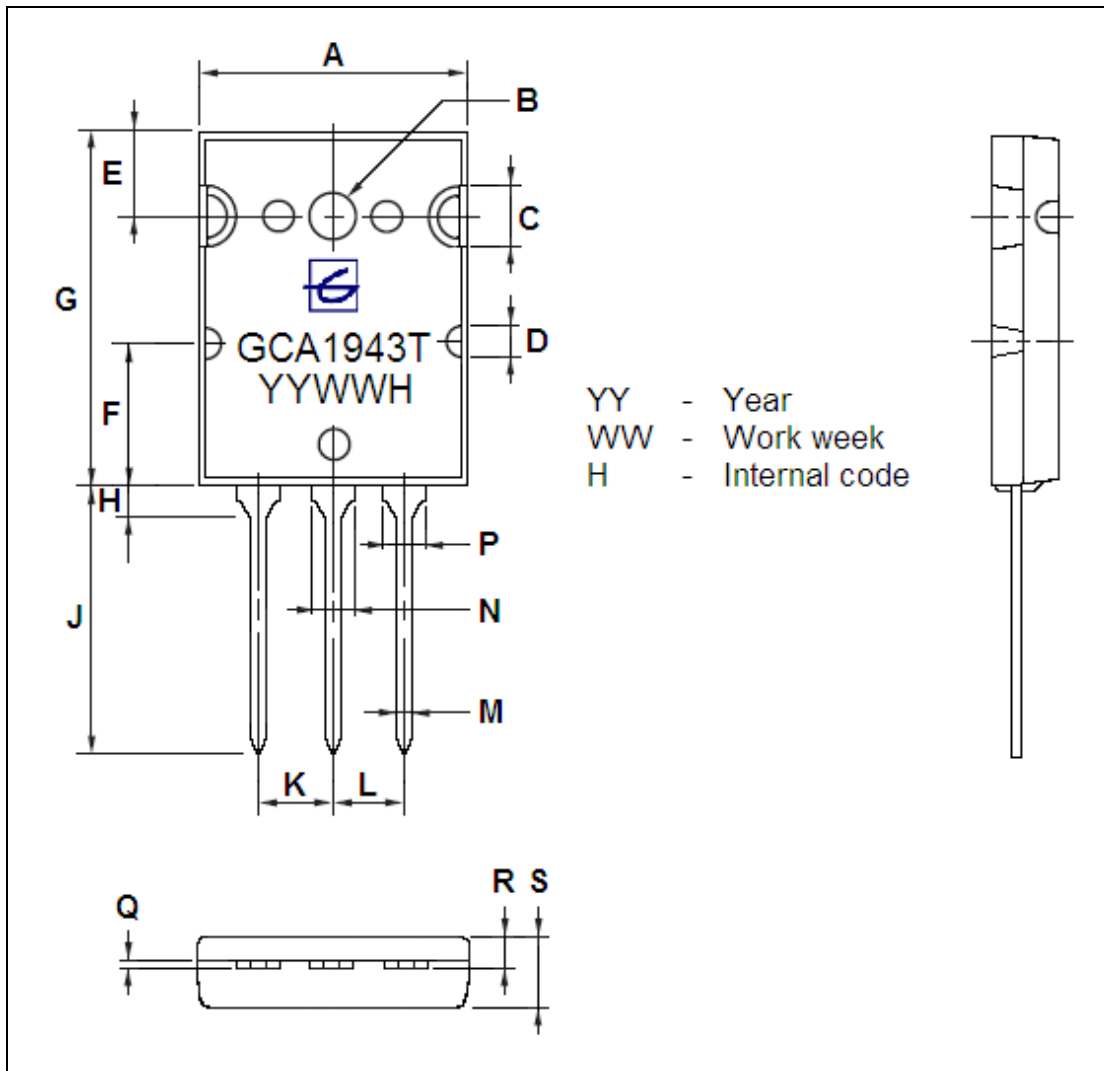
SAFE OPERATING AREA





PACKAGING

DIMENSIONS AND MARKING FOR TO-3PL PACKAGE



TO-3PL		A	B	C	D	E	F	G	H	J
MM	Min	-	3.100	4.000	2.000	6.000	11.000	25.500	2.500	19.400
	Max	20.500	3.500					26.500		20.600
INCHES	Min	-	0.122	0.157	0.079	0.236	0.433	1.004	0.098	0.764
	Max	0.807	0.138					1.043		0.811

TO-3PL		K	L	M	N	P	Q	R	S
MM	Min	5.300	5.300	0.750	3.000	2.500	0.500	2.600	-
	Max	5.600	5.600	1.300			0.825		5.200
INCHES	Min	0.209	0.209	0.030	0.118	0.098	0.020	0.102	-
	Max	0.220	0.220	0.051			0.032		0.205



ORDERING INFORMATION

PART NUMBER	PACKAGE
GCA1943T	TO-3PL

The information presented in this data sheet is believed to be accurate and reliable. Application circuits shown are typical examples illustrating the operation of the device.

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