



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

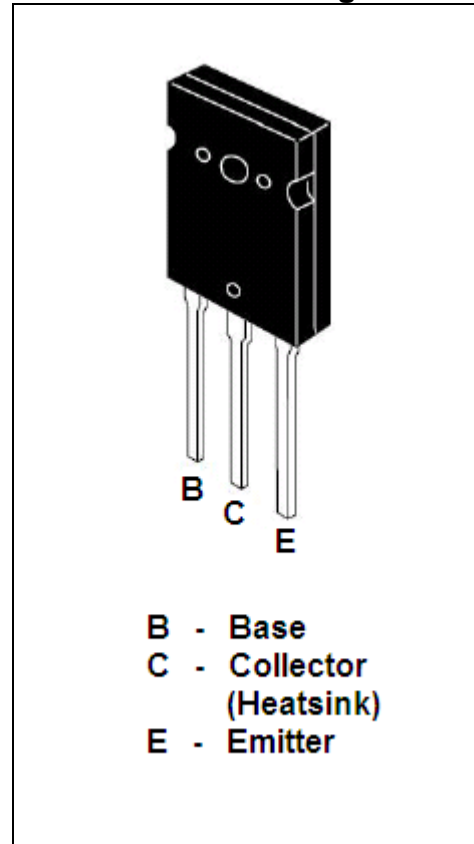
- High collector-emitter voltage.
- High gain.
- Complementary to GCA5200
- TO-3PL package for either screw or clip-on mounting to external heatsink.
- Low distortion

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)

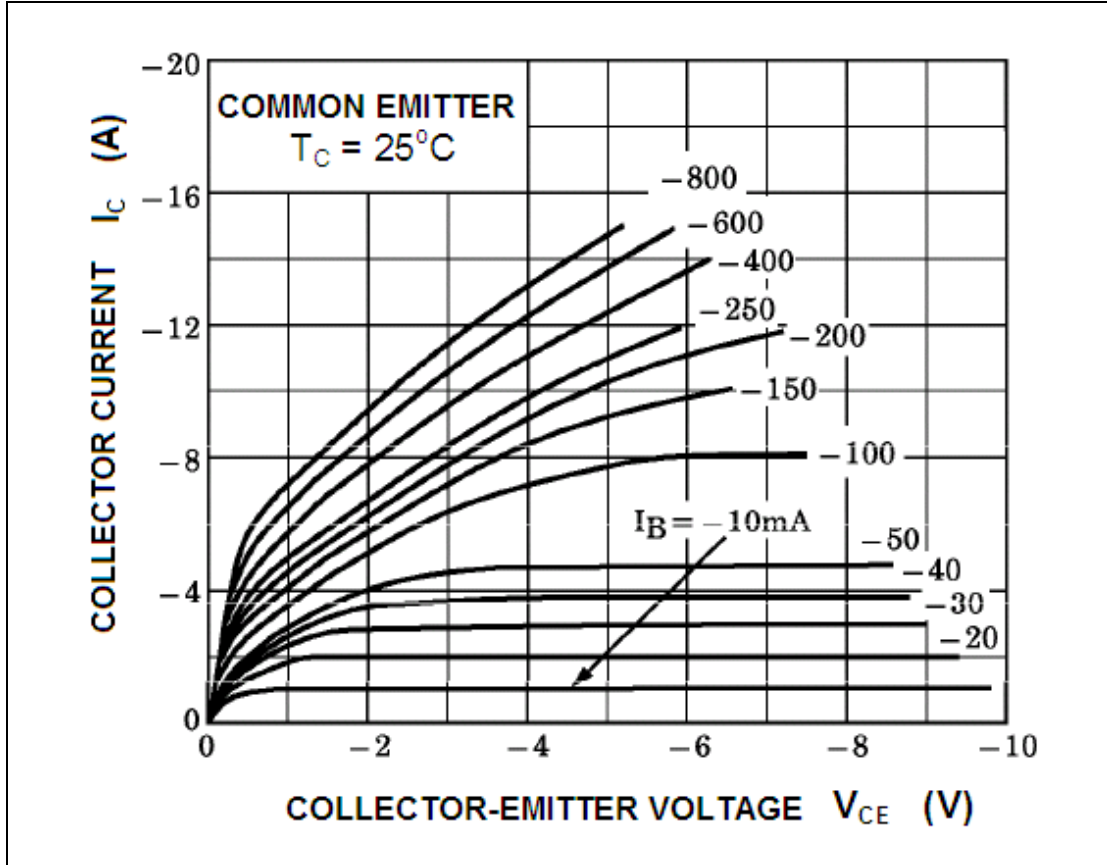
PARAMETER		TEST CONDITION	MIN	MAX	UNIT
V _{CEO}	Max Collector-Emitter Voltage	I _C =-50 mA	-230		V
I _{CBO}	Collector Cut-off Current	V _{CB} =-230V		-5	uA
I _{EBO}	Emitter Cut-off Current	V _{EB} =-5V		-5	uA
V _{CE}	Collector-Emitter Saturation Voltage	I _C =-8A I _B =-0.8A		-3	V
V _{BE}	Base-Emitter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

AC CHARACTERISTICS (T_a=25°C)

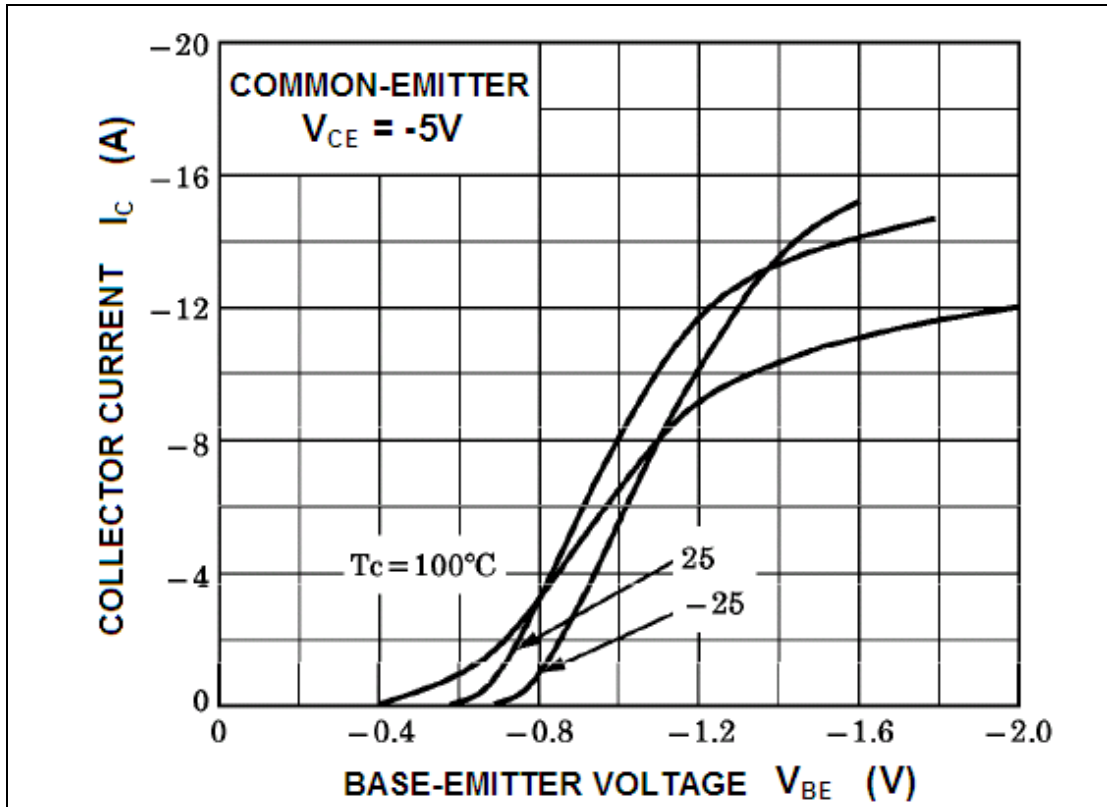
PARAMETER		TEST CONDITION	MIN	MAX	UNIT
f _T	Transition frequency	I _C =-1A V _{CE} =-5V		30	MHz
COB	Collector Output Capacitance	V _{CB} =-10V, f=1MHZ		360	pF
h _{FE}	Current Gain	I _C =-1A V _{CE} =-5V	55	160	-
		I _C =-7A V _{CE} =-5V	35	60	-



COLLECTOR CURRENT VS COLLECTOR-EMITTER VOLTAGE

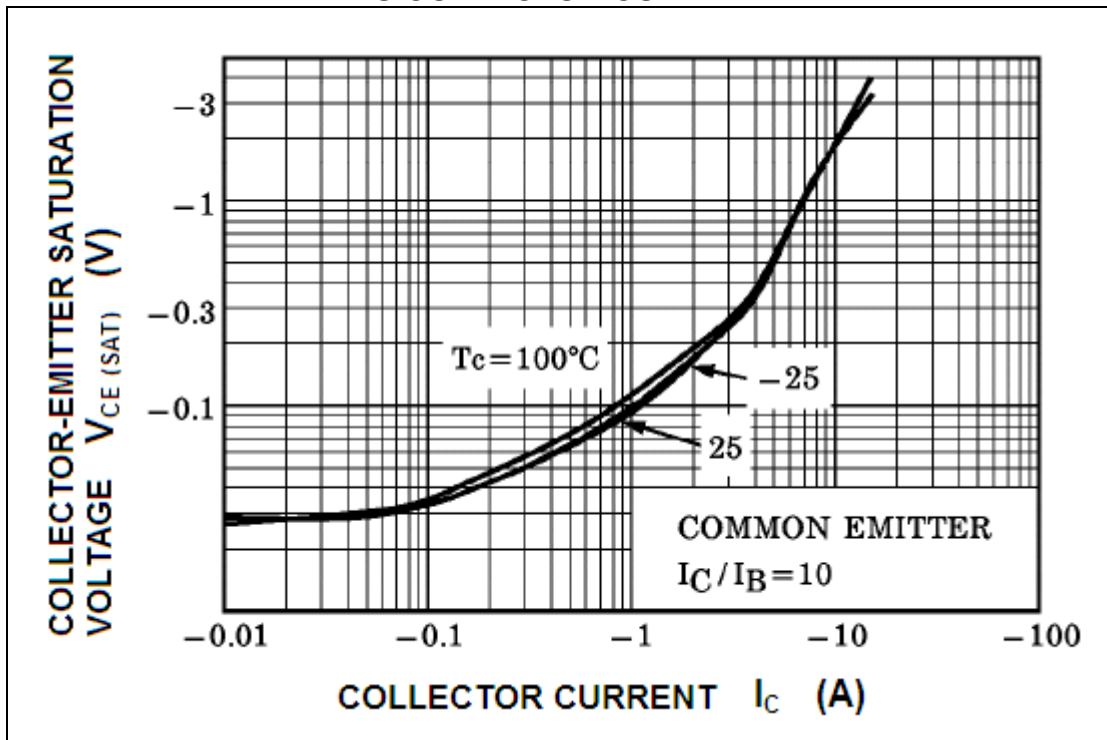


COLLECTOR CURRENT VS BASE-EMITTER VOLTAGE

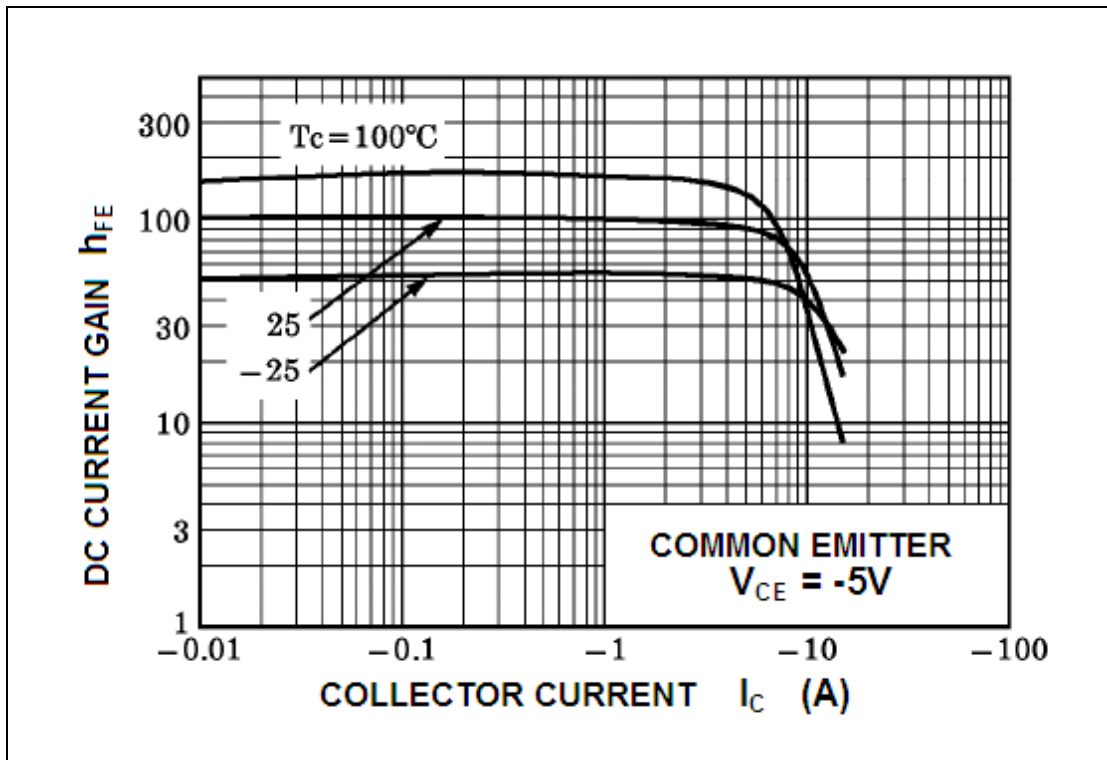




COLLECTOR-EMITTER SATURATION VOLTAGE VS COLLECTOR CURRENT

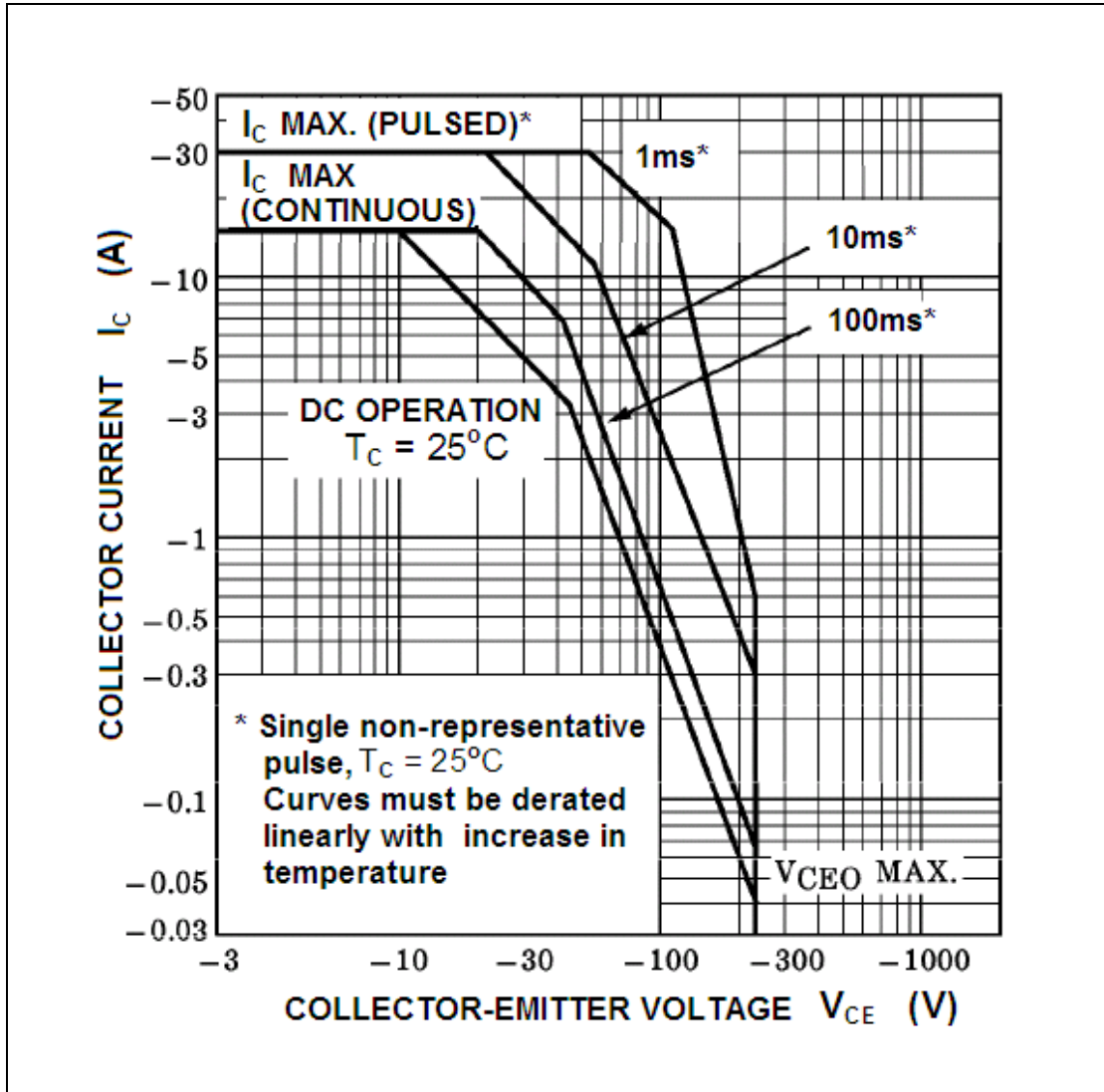


DC CURRENT GAIN VS COLLECTOR CURRENT





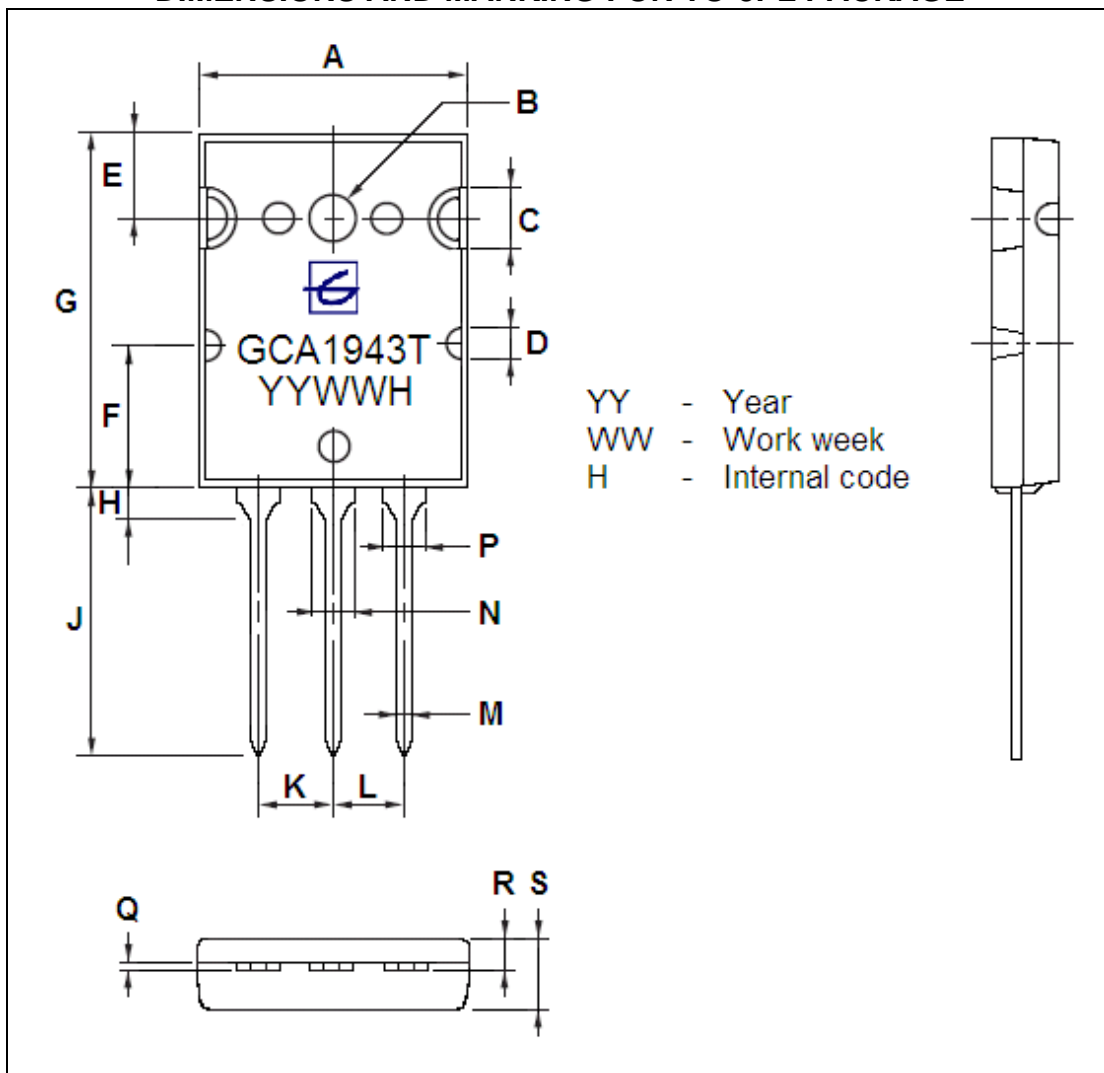
SAFE OPERATING AREA





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.
In the interest of product improvement, GateLevel reserves the right to change specifications and data without notice and can assume no responsibility for the use of any information, devices and application circuits described herein.
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