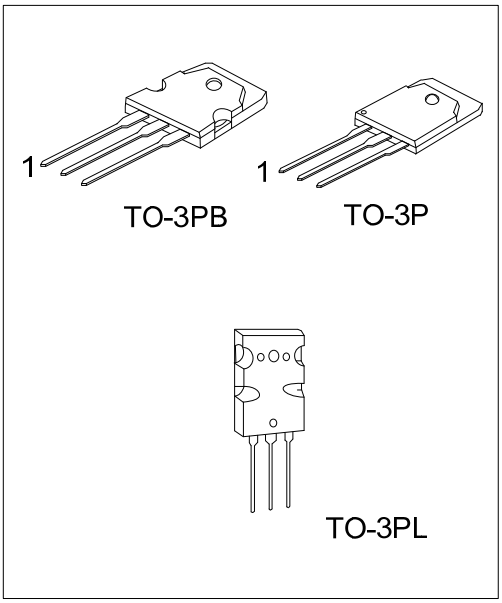
2SA1943

PNP SILICON TRANSISTOR

POWER AMPLIFIER APPLICATIONS



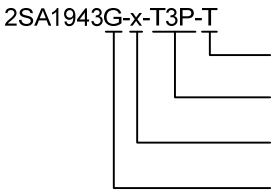
■ FEATURES

* Complementary to UTC **2SC5200**
* Recommended for 100W High Fidelity Audio Frequency Amplifier Output Stage

■ ORDERING INFORMATION

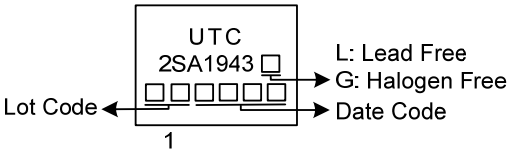
Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SA1943L-x-T3P-T	2SA1943G-x-T3P-T	TO-3P	B	C	E	Tube
2SA1943L-x-T3B-T	2SA1943G-x-T3B-T	TO-3PB	B	C	E	Tube
2SA1943L-x-T3L-T	2SA1943G-x-T3L-T	TO-3PL	B	C	E	Tube

Note: Pin Assignment: B: Base C: Collector E: Emitter



(1) T: Tube
(2) T3P: TO-3P, T3B: TO-3PB, T3L: TO-3PL
(3) Rrefer to CLASSIFICATION OF h_{FE1}
(4) G: Halogen Free and Lead Free, L: Lead Free

■ MARKING



■ ABSOLUTE MAXIMUM RATING (T_C=25°C, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	-230	V
Collector-Emitter Voltage	V_{CEO}	-230	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-15	A
Base Current	I_B	-1.5	A
Collector Power Dissipation (T_C=25°C)	P_C	150	W
Junction Temperature	T_J	+150	°C
Storage Temperature Range	T_{STG}	-65 ~ +125	°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise specified)

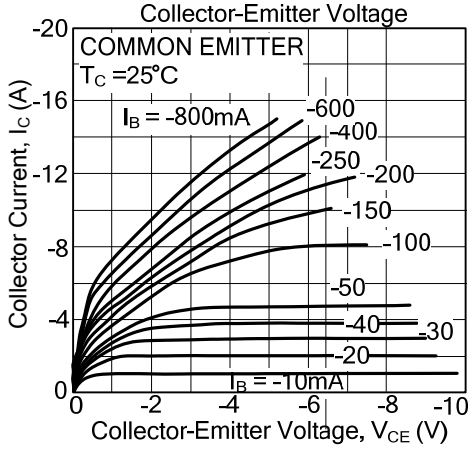
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cut-Off Current	I_{CBO}	V_{CB} = -230V, I_E=0			-5.0	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}= -5V, I_C=0			-5.0	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)\ CEO}$	I_C= -50mA, I_B=0	-230			V
DC Current Gain	h_{FE}	V_{CE}= -5V, I_C= -1A	55		160	
	h_{FE}	V_{CE}= -5V, I_C= -7A	35	60		
Collector-Emitter Saturation Voltage	$V_{CE\ (SAT)}$	I_C= -8A, I_B= -0.8A		-1.5	-3.0	V
Base -Emitter Voltage	V_{BE}	V_{CE}= -5V, I_C= -7A		-1.0	-1.5	V
Transition Frequency	f_T	V_{CE}= -5V, I_C= -1A		30		MHz
Collector Output Capacitance	Cob	V_{CB}= -10V, I_E=0, f=1MHz		360		pF

■ CLASSIFICATION OF h_{FE}

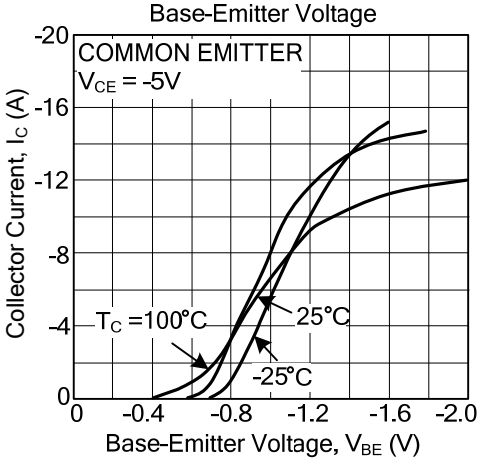
Rank	R	O
Range	55 ~ 110	80 ~ 160

■ TYPICAL CHARACTERISTICS

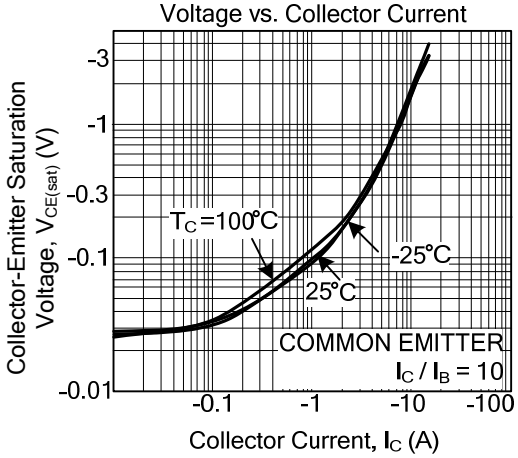
Collector Current vs. Collector-Emitter Voltage



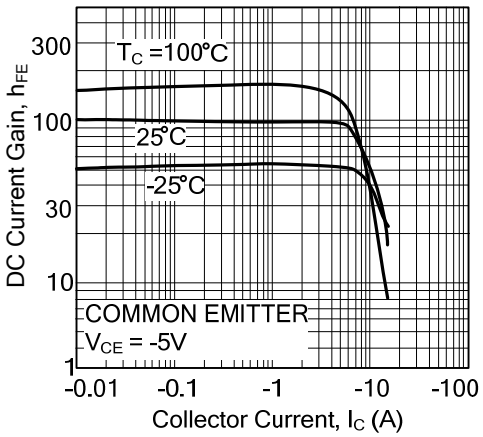
Collector Current vs. Base-Emitter Voltage



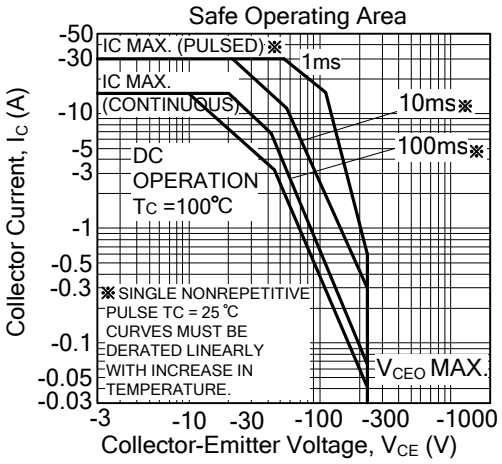
Collector-Emitter Saturation Voltage vs. Collector Current



DC Current Gain vs. Collector Current



Safe Operating Area



Transient Thermal Resistance vs. Pulse Width