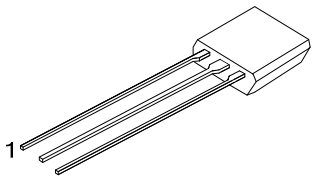
2SC5765

NPN EPITAXIAL SILICON TRANSISTOR

MEDIUM POWER AMPLIFIER
STROBO FLASH



TO-92SP

■ DESCRIPTION

medium power amplifier applications
strobo flash applications

■ FEATURES

* Low Saturation Voltage: $V_{CE(sat)}$ = 0.27 V (max.),
(Ic = 3A / I_B =60 mA)

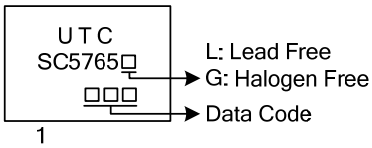
■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SC5765L-T9S-K	2SC5765G-T9S-K	TO-92SP	E	C	B	Bulk

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

2SC5765L-T9K-R (1)Packing Type (2)Package Type (3)Green Package	(1) K: Bulk (2) T9S: TO-92SP (3) L: Lead Free, G: Halogen Free and Lead Free

■ MARKING



■ ABSOLUTE MAXIMUM RATING (T_A=25°C)

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		V_{CBO}	15	V
Collector-Emitter Voltage		V_{CEO}	10	V
Emitter-Base Voltage		V_{EBO}	7	V
Collector Current	DC	I_C	5	A
	Plused		9	A
Collector Power Dissipation (Note 2)		P_C	550	mW
Junction Temperature		T_J	150	°C
Storage Temperature		T_{STG}	-55 ~ +150	°C

Notes: 1. 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.
2. When a device is mounted on a glass epoxy board (35 mm×30 mm×1mm)

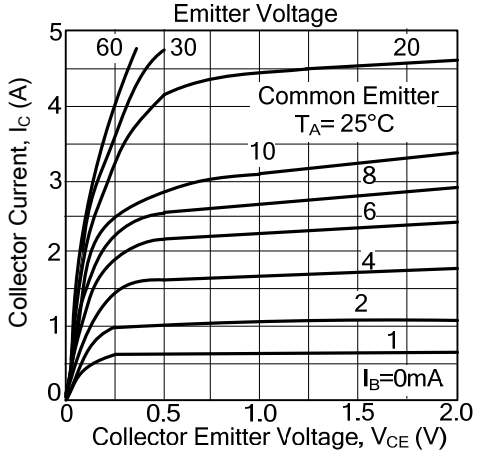
■ ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C=1mA, I_B= 0	10			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=15V, I_E= 0			0.1	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}= 5V, I_C=0			0.1	μA
DC Current Gain (Note)	$h_{FE\ 1}$	V_{CE}=1.5V, I_C=0.5A	450		700	
	h_{FE2}	V_{CE}=1.5V, I_C=2A	320			
	h_{FE3}	V_{CE}=1.5V, I_C=5A	170			
Collector-Emitter Saturation Voltage (Note)	$V_{CE(SAT)}$	I_C=3A, I_B=60mA			0.27	V
Collector Output Capacitance	C_{ob}	V_{CB}=10V, I_E= 0, f=1MHz		25		pF

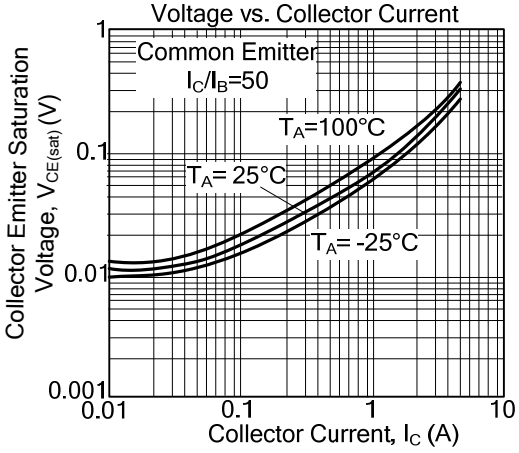
Note: Pulse test

■ TYPICAL CHARACTERISTICS

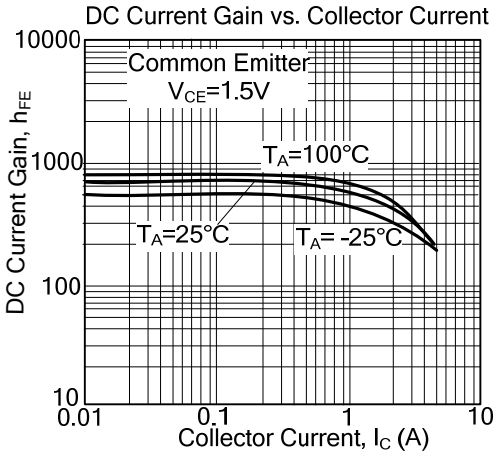
Collector Current vs. Collector Emitter Voltage



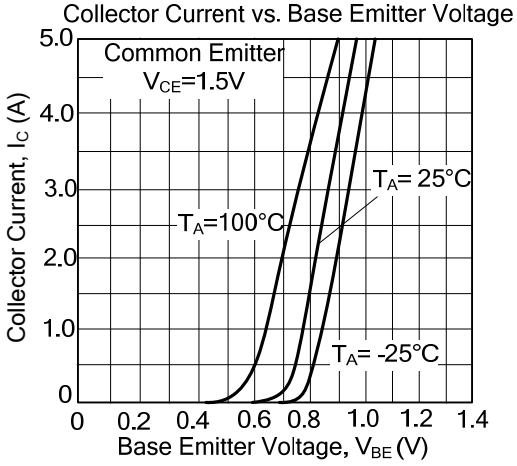
Collector Emitter Saturation Voltage vs. Collector Current



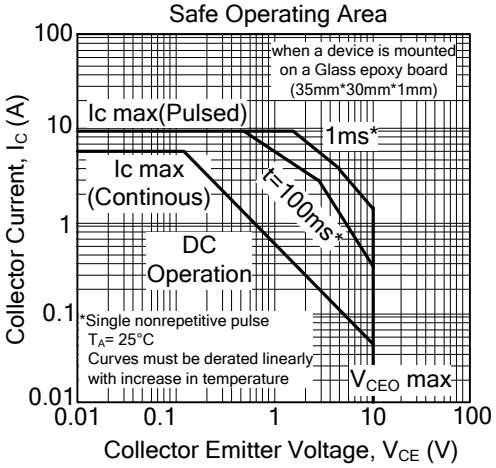
DC Current Gain vs. Collector Current



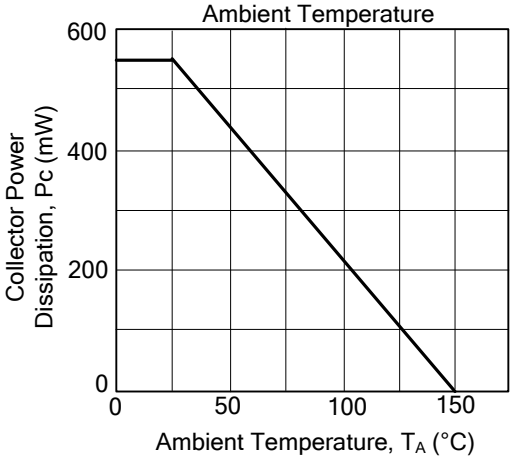
Collector Current vs. Base Emitter Voltage



Safe Operating Area



Collector Power Dissipation vs. Ambient Temperature



■ TYPICAL CHARACTERISTICS