2SC3149

NPN SILICON TRANSISTOR

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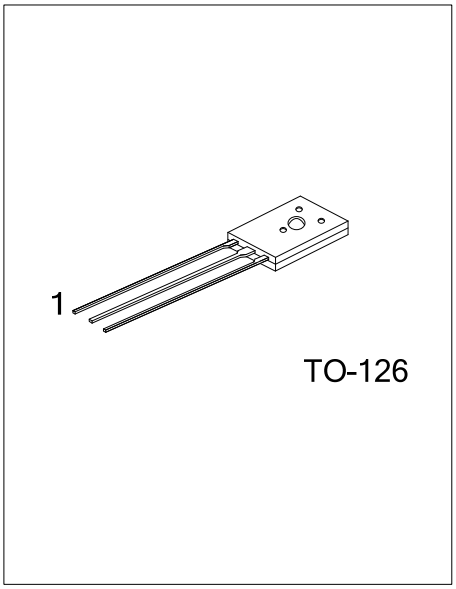


■ DESCRIPTION

The UTC **2SC3149** are series of NPN silicon planar transistor, and its suited to be used in power amplifier applications.

■ FEATURES

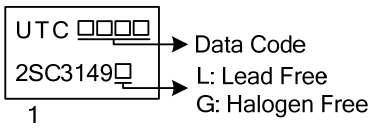
* Suit for power amplifier applications

■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SC3149L-T60-K	2SC3149G-T60-K	TO-126	B	C	E	Bulk

2SC3149L-T60-K (1)Packing Type (2)Package Type (3)Green Package	(1) K: Bulk (2) T60: TO-126 (3) L: Lead Free, G: Halogen Free and Lead Free

■ MARKING



■ ABSOLUTE MAXIMUM RATING

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	1200	V
Collector-emitter voltage	V_{CEO}	800	V
Emitter-Base Voltage	V_{EBO}	7	V
Collector Current	I_C	0.5	A
Collector Dissipation	P_C	2	W
Junction Temperature	T_J	+150	°C
Storage Temperature	T_{STG}	-55 ~ +150	°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℃, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CBO}	I_C=1mA, I_E=0A	1200			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C=5mA, I_B=0A	800			V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E=1mA, I_C=0A	7			V
Collector Cutoff Current	I_{CBO}	V_{CB}=800V, I_E=0A			10	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=5V, I_C=0A			10	μA
DC Current Gain (Note)	h_{FE}	I_C=100mA, V_{CE}=5V	10		40	
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	I_C=200mA, I_B=40mA			0.8	V
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	I_C=200mA, I_B=40mA			1.5	V
Current Gain Bandwidth Product	f_T	I_C=100mA, V_{CE}=10V		15		MHz
Output Capacitance	C_{OB}	V_{CB}=10V, f=1MHz		30		pF
Turn-On Time	t_{ON}	I_C=1A, I_{B1}=0.2A, I_{B2}=-0.4A, R_L=400Ω, V_{CC}=400V			1.0	μs
Storage Time	t_{STG}				3.0	μs
Fall Time	t_F				0.7	μs

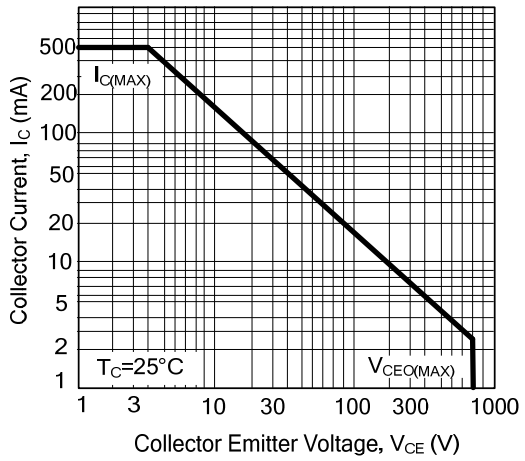
Note: Pulse test: Pulse width=300μs, Duty Cycle≦2%

■ CLASSIFICATION OF h_{FE}

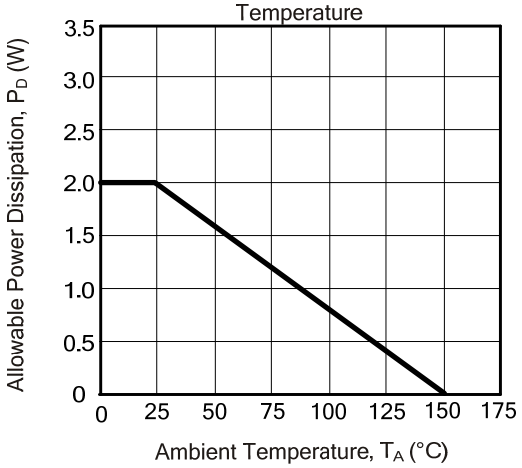
RANK	K	L	M
RANGE	10 ~ 20	15 ~ 30	20 ~ 40

■ TYPICAL CHARACTERISTICS

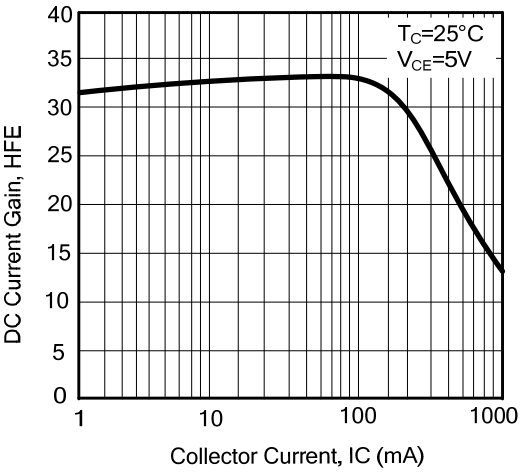
Safe Operating Area (DC)



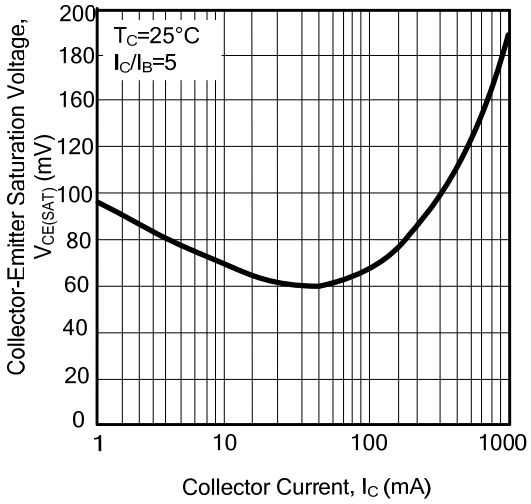
Power Dissipation vs Ambient Temperature



DC Current Gain vs. Collector Current



Collector-Emitter Saturation Voltage vs. Collector Current



Base-Emitter Saturation Voltag vs. Collector Current