



2SC3149

Preliminary

NPN SILICON TRANSISTOR

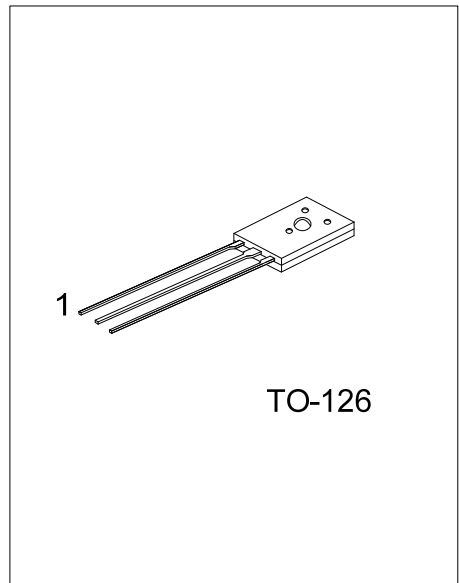
NPN TEANSISTOR

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



Lead-free: 2SC3149L
Halogen-free: 2SC3149G

ORDERING INFORMATION

Ordering Number			Package	Pin Assignment			Packing
Normal	Lead Free	Halogen Free		1	2	3	
2SC3149-T60-K	2SC3149L-T60-K	2SC3149G-T60-K	TO-126	B	C	E	Bulk

<p>2SC3149L-T60-K</p> <p>(1)Packing Type</p> <p>(2)Package Type</p> <p>(3)Lead Plating</p>	<p>(1) K: Bulk</p> <p>(2) T60: TO-126</p> <p>(3) G: Halogen Free, L: Lead Free, Blank: Pb/Sn</p>
--	--

■ 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 ($T_a=25^\circ\text{C}$, unless otherwise specified)

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

Note: Pulse test: Pulse width=300 μs , Duty Cycle $\leq 2\%$

■ CLASSIFICATION OF h_{FE}

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

UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. The information presented in this document does not form part of any quotation or contract, is believed to be accurate and reliable and may be changed without notice.