

UTC2SC1384 NPN EPITAXIAL PLANAR TRANSISTOR

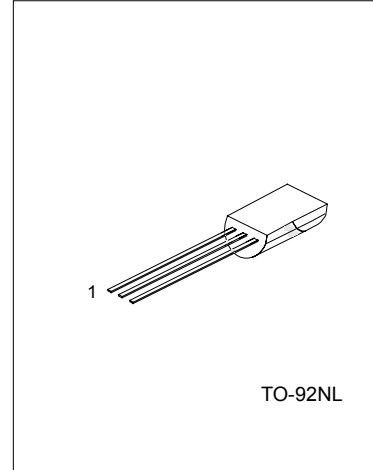
NPN EPITAXIAL PLANAR TRANSISTOR

DESCRIPTION

The UTC 2SC1384 is power amplifier and driver.

FEATURES

- *Low collector to emitter saturation voltage $V_{CE(sat)}$
- *Complementary pair with 2SA684



1:EMITTER 2:COLLECTOR 3:BASE

ABSOLUTE MAXIMUM RATINGS (Ta=25°C, unless otherwise specified)

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CB0}	60	V
Collector-Emitter Voltage	V_{CE0}	50	V
Emitter-Base Voltage	V_{EB0}	5	V
Peak Collector Current	I_{cp}	1.5	A
Collector Current (DC)	I_c	1	A
Collector Dissipation (Ta=25°C)	P_c	1	W
Junction Temperature	T_j	150	°C
Storage Temperature	T_{STG}	-55 ~ +150	°C

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cut-Off Current	I_{CBO}	$V_{CB}=20V, I_E=0$			0.1	μA
Collector-Base Voltage	V_{CB0}	$I_c=10\mu A, I_E=0$	60			V
Collector-Emitter Voltage	V_{CE0}	$I_c=2mA, I_B=0$	50			V
Emitter-Base Voltage	V_{EB0}	$I_E=10\mu A, I_c=0$	5			V
DC Current Gain	h_{FE1} h_{FE2}	$V_{CE}=10V, I_c=500mA$ (note) $V_{CE}=5V, I_B=1A$ (note)	85 50	160 100	340	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_c=0.5A, I_B=50mA$ (note)		0.2	0.4	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_c=0.5A, I_B=50mA$ (note)		0.85	1.2	V
Current Gain Bandwidth Product	f_r	$V_{CE}=10V, I_B=-50mA, f=200MHz$		200		MHz
Output Capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$		11	20	pF

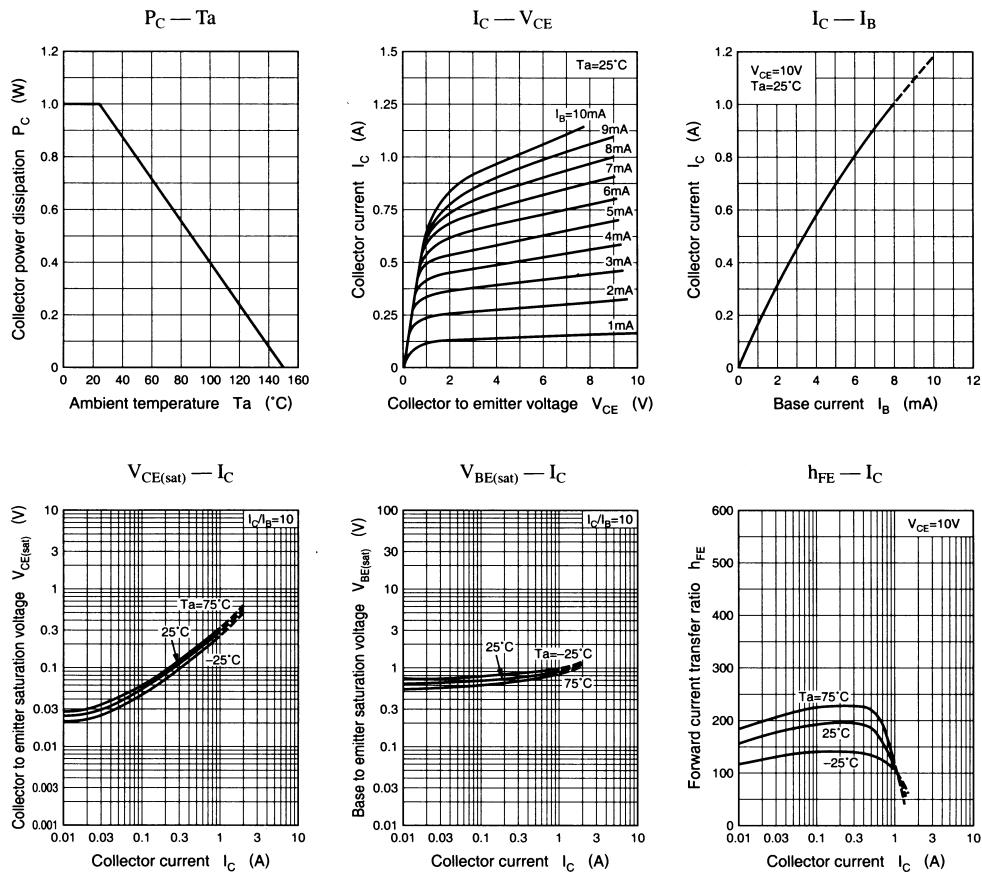
Note: Pulse measurement

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CLASSIFICATION OF h_{FE}

RANK	Q	R	S
RANGE	85-170	120-240	170-340

TYPICAL PERFORMANCE CHARACTERISTICS



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