



2SC1384

NPN SILICON TRANSISTOR

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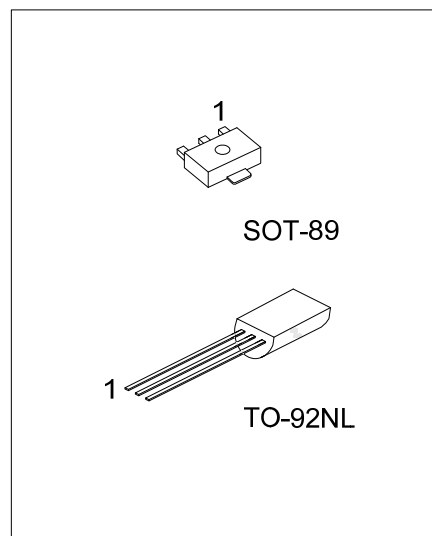
DESCRIPTION

The UTC **2SC1384** is power amplifier and driver.

FEATURES

* Low $V_{CE(SAT)}$

* 2~3W output in complementary pair with 2SA684



Lead-free: 2SC1384L

Halogen-free: 2SC1384G

ORDERING INFORMATION

Ordering Number			Package	Pin Assignment			Packing
Normal	Lead Free Plating	Halogen-Free		1	2	3	
2SC1384-x-AB3-R	2SC1384L-x-AB3-R	2SC1384G-x-AB3-R	SOT-89	B	C	E	Tape Reel
2SC1384-x-T9N-B	2SC1384L-x-T9N-B	2SC1384G-x-T9N-B	TO-92NL	E	C	B	Tape Box
2SC1384-x-T9N-K	2SC1384L-x-T9N-K	2SC1384G-x-T9N-K	TO-92NL	E	C	B	Bulk
2SC1384-x-T9N-R	2SC1384L-x-T9N-R	2SC1384G-x-T9N-R	TO-92NL	E	C	B	Tape Reel

2SC1384L-x-AB3-B	(1)Packing Type (2)Package Type (3)Rank (4)Lead Plating	(1) K: Bulk, T: Tube, R: Tape Reel (2) AB3: SOT-89, T9N: TO-92NL (3) x: refer to Classification of h_{FE} (4)G: Halogen Free, L: Lead Free Plating, Blank: Pb/Sn
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■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	5	V
Peak Collector Current	I_{CP}	1.5	A
Collector Current (DC)	I_C	1	A
Collector Dissipation (Ta=25°C)	P_C	1000	mW
Junction Temperature	T_J	125	°C
Operating Temperature	T_{OPR}	-20 ~ +85	°C
Storage Temperature	T_{STG}	-40 ~ +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.

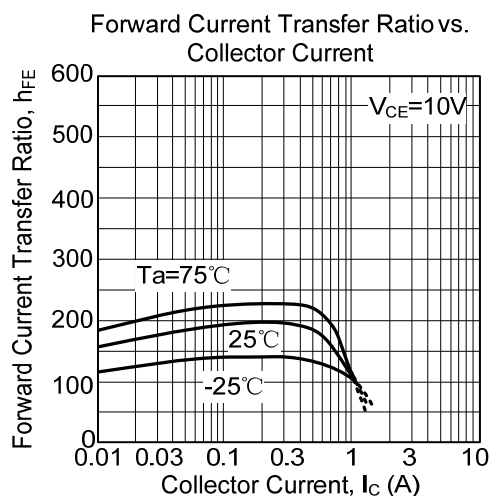
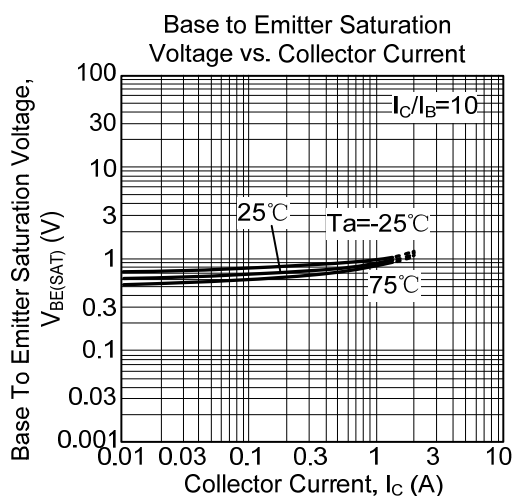
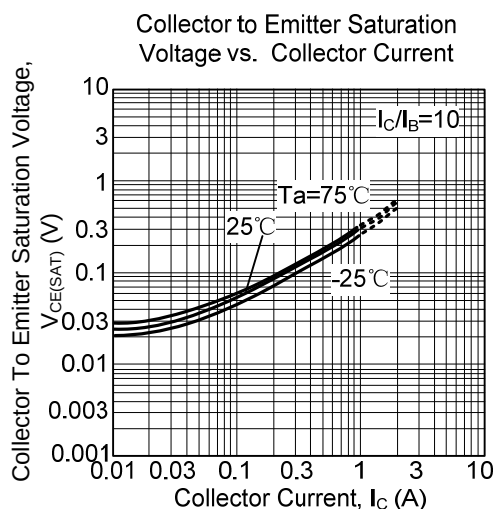
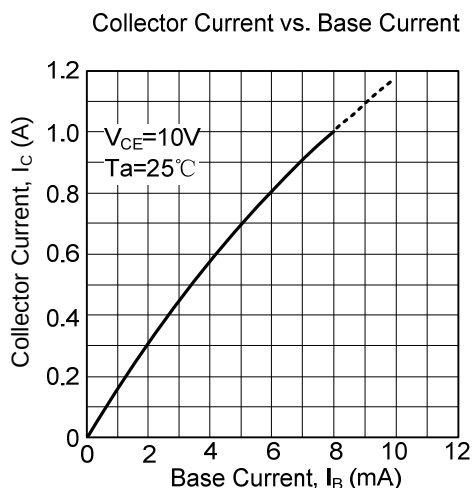
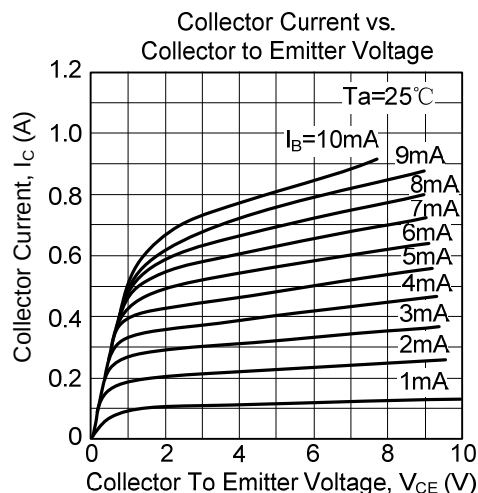
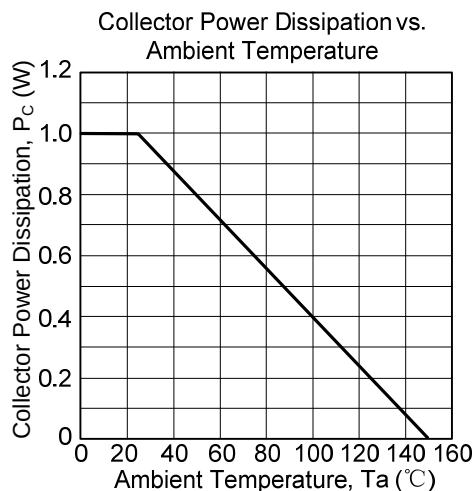
■ ELECTRICAL CHARACTERISTICS (Ta=25°C, unless otherwise specified)

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

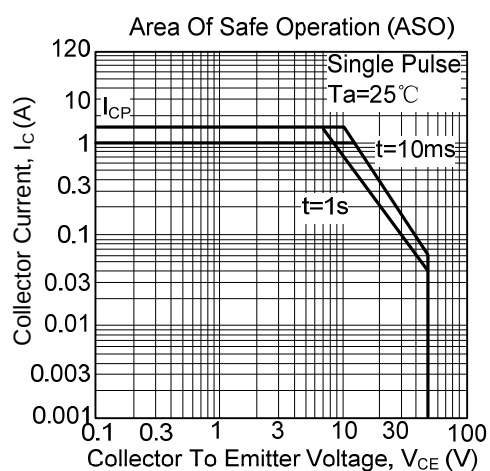
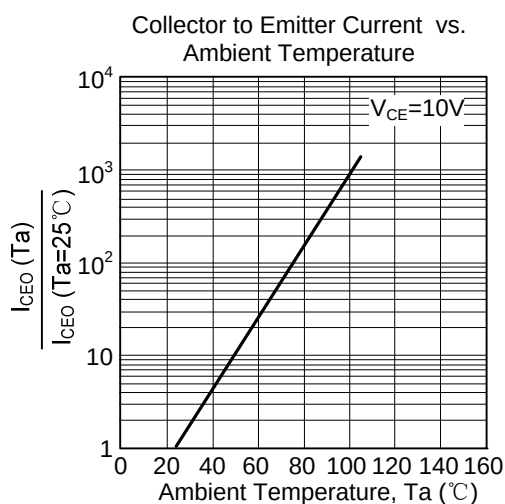
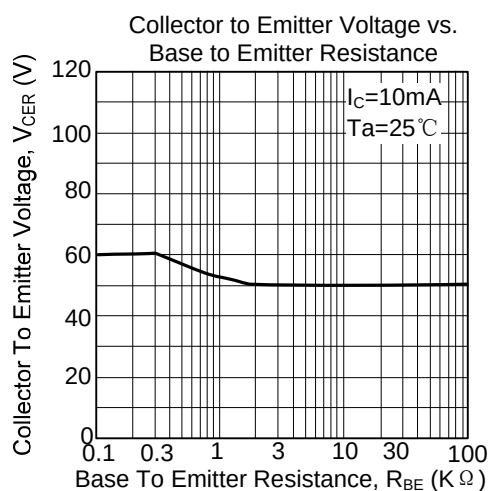
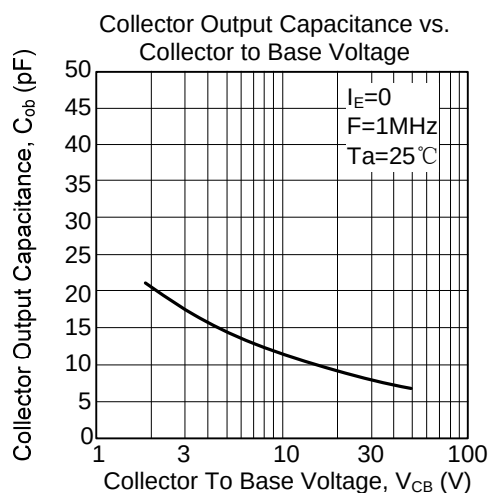
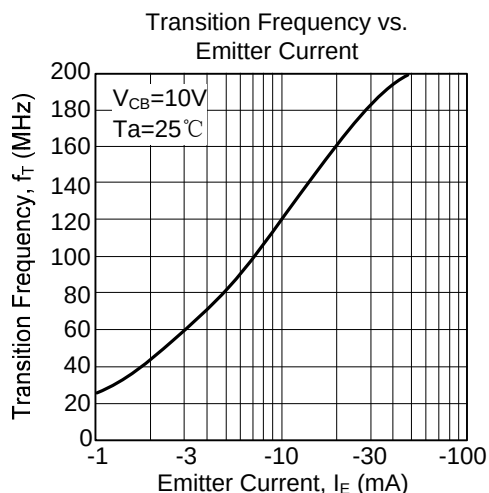
■ CLASSIFICATION OF h_{FE}

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

TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS(Cont.)



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