



UNISONIC TECHNOLOGIES CO., LTD

2SC4548

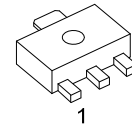
NPN SILICON TRANSISTOR

HIGH VOLTAGE DRIVER APPLICATION

■ FEATURES

*High breakdown voltage.

*Excellent h_{FE} linearity.



SOT-89

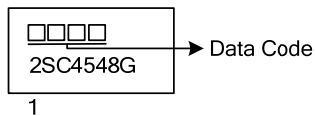
■ ORDERING INFORMATION

Ordering Number	Package	Pin Assignment			Packing
		1	2	3	
2SC4548G-x-AB3-R	SOT-89	B	C	E	Tape Reel

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

2SC4548G-x-AB3-R	(1) Packing Type (2) Package Type (3) Rank (4) Green Package	(1) R: Tape Reel (2) AB3: SOT-89 (3) x: refer to Classification of h_{FE} (4) G: Halogen Free and Lead Free
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■ MARKING



1

■ **ABSOLUTE MAXIMUM RATINGS** ($T_A = 25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	400	V
Collector-Emitter Voltage	V_{CEO}	400	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	200	mA
Collector Current (PULSE)	I_{CP}	400	mA
Collector Power Dissipation	P_C	1.3	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 ~ +150	$^\circ\text{C}$

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.

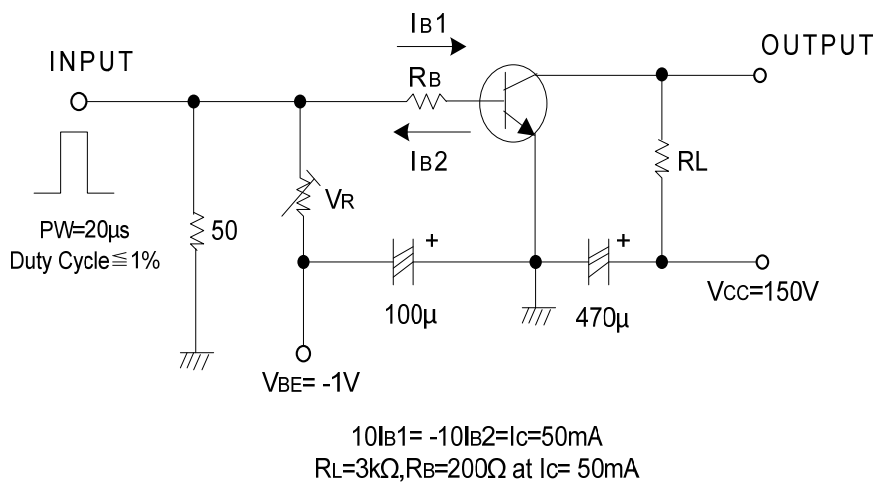
■ **ELECTRICAL CHARACTERISTICS** ($T_A = 25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collect-Base Breakdown Voltage	BV_{CBO}	$I_C = 10\mu\text{A}, I_E = 0$	400			V
Collect-Emitter Breakdown Voltage	BV_{CEO}	$I_C = 1\text{mA}, I_B = 0, R_{BE} = \infty$	400			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E = 10\mu\text{A}, I_C = 0$	5			V
Collector Cutoff Current	I_{CBO}	$V_{CB} = 300\text{V}, I_E = 0$			0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 4\text{V}, I_C = 0$			0.1	μA
DC Current Transfer Ratio	h_{FE}	$V_{CE} = 10\text{V}, I_C = 50\text{mA}$	60		200	
Collect-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C = 50\text{mA}, I_B = 5\text{mA}$		0.6		V
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	$I_C = 50\text{mA}, I_B = 5\text{mA}$			1.0	V
Output Capacitance	C_{OB}	$V_{CB} = 30\text{V}, f = 1\text{MHz}$		4		pF
Reverse Transfer Capacitance	C_{RE}	$V_{CB} = 30\text{V}, f = 1\text{MHz}$		3		pF
Gain-Bandwidth Product	f_T	$V_{CE} = 30\text{V}, I_C = 10\text{mA}$		70		MHz
Turn-on Time	T_{ON}	See test circuit		0.25		μs
Turn-off Time	T_{OFF}	See test circuit		5.0		μs

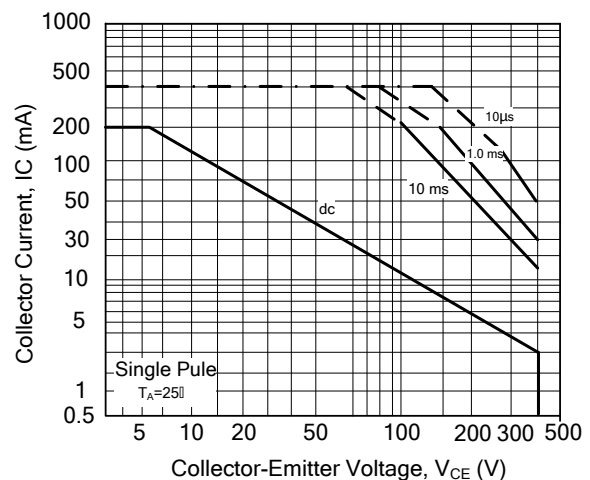
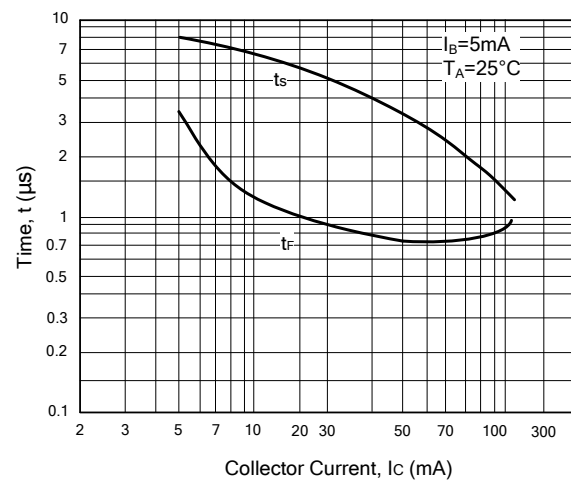
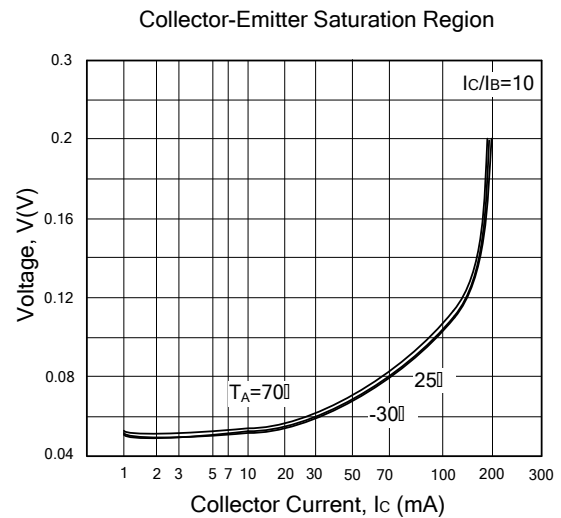
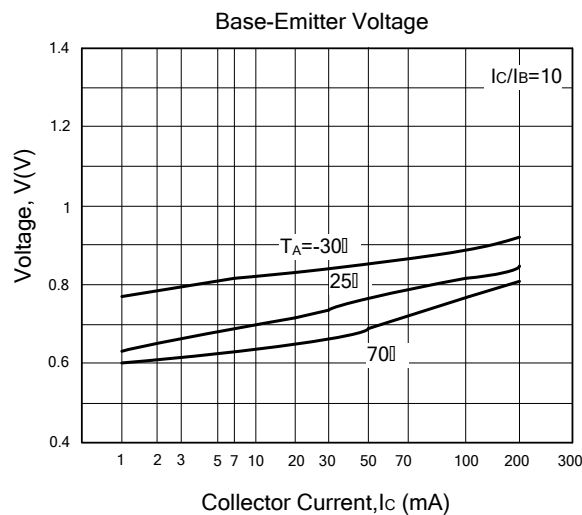
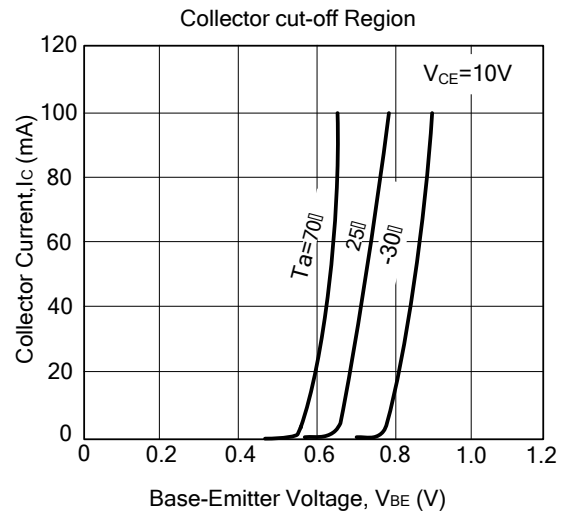
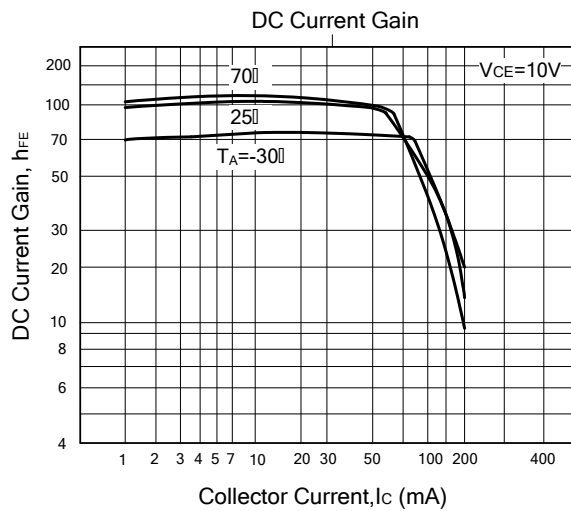
■ CLASSIFICATION OF h_{FE}

RANK	D	E
RANGE	60-120	100-200

■ TEST CIRCUIT (Unit : resistance : Ω , capacitance : F)

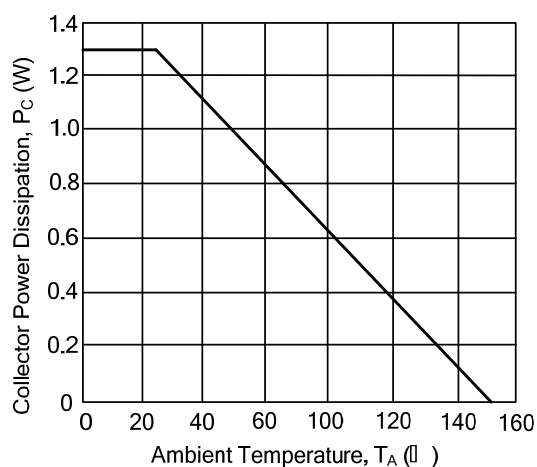


TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS

Collector Power Dissipation vs. Ambient Temperature



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