



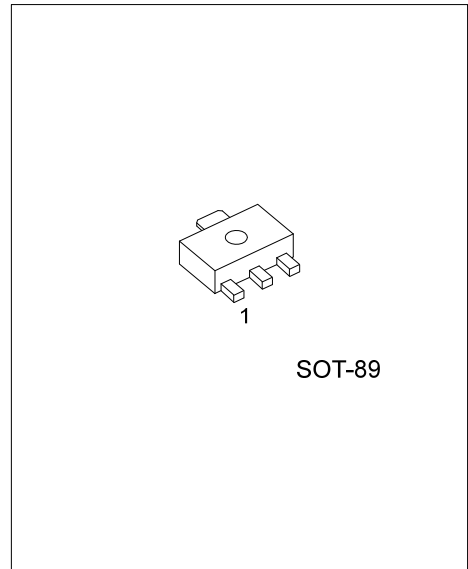
## 2SC4548

## NPN SILICON TRANSISTOR

### HIGH VOLTAGE DRIVER APPLICATION

#### FEATURES

- \*High breakdown voltage.
- \*Excellent  $h_{FE}$  linearity.



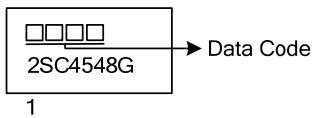
#### ORDERING INFORMATION

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

<p>2SC4548G-x-AB3-R</p>	<p>(1) R: Tape Reel</p> <p>(2) AB3: SOT-89</p> <p>(3) x: refer to Classification of <math>h_{FE}</math></p> <p>(4) G: Halogen Free and Lead Free</p>
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#### MARKING



■ 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	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB}=4\text{V}, I_C=0$			0.1	$\mu\text{A}$
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		$\mu\text{s}$
Turn-off Time	$T_{OFF}$	See test circuit		5.0		$\mu\text{s}$

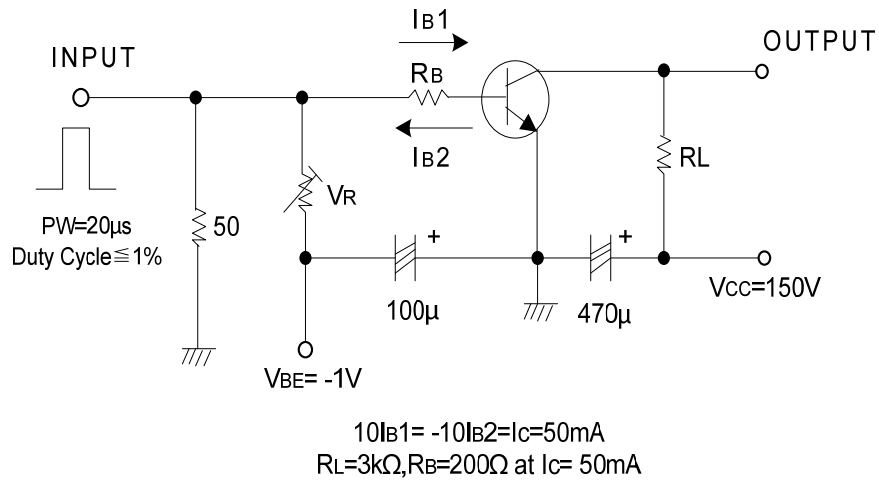
# 2SC4548

## NPN SILICON TRANSISTOR

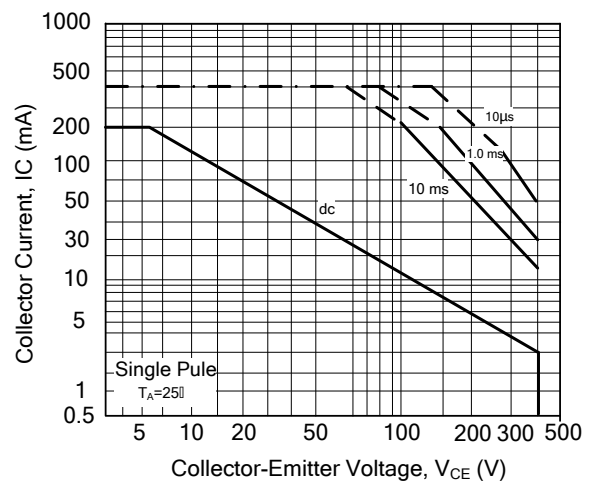
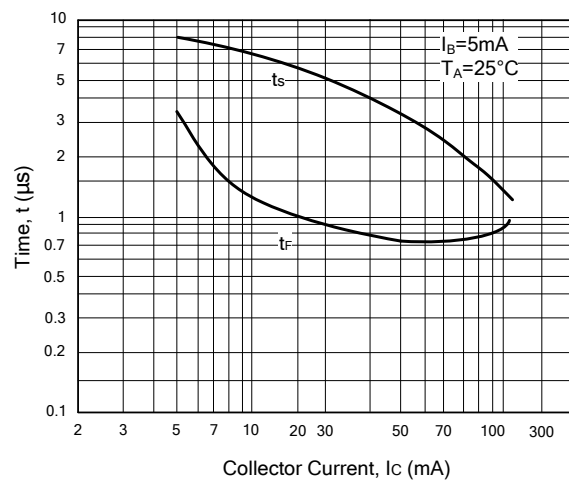
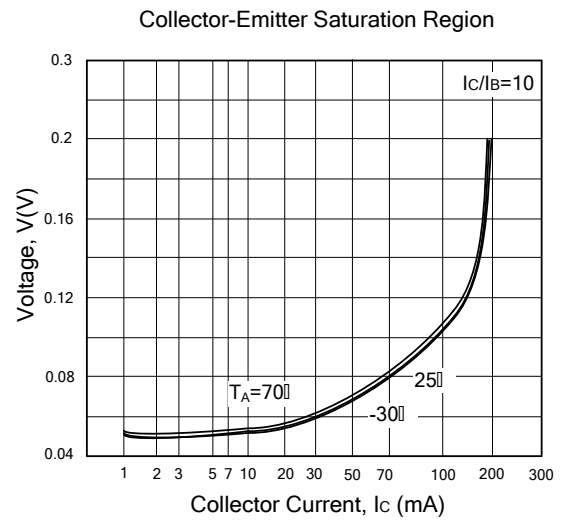
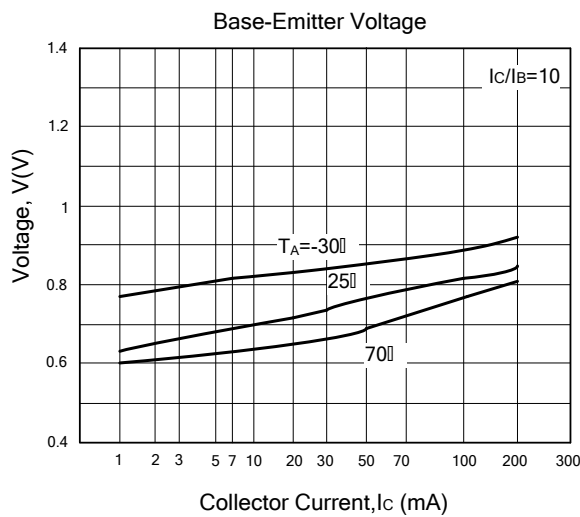
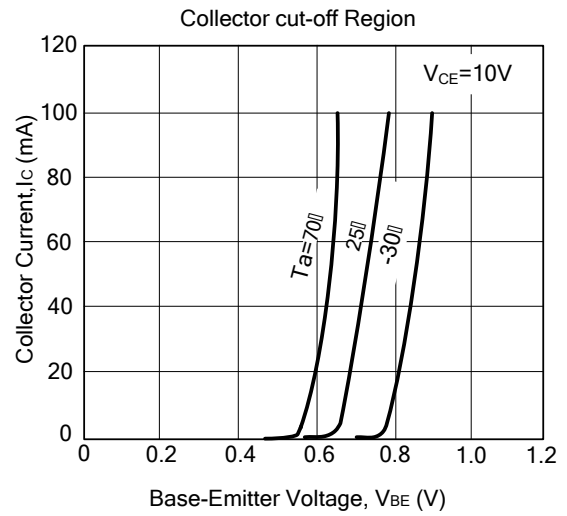
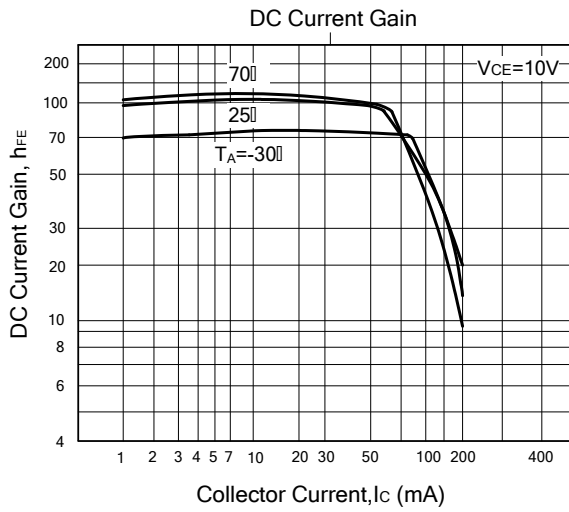
### CLASSIFICATION OF $h_{FE}$

RANK	D	E
RANGE	60-120	100-200

### TEST CIRCUIT (Unit : resistance : $\Omega$ , capacitance : F)

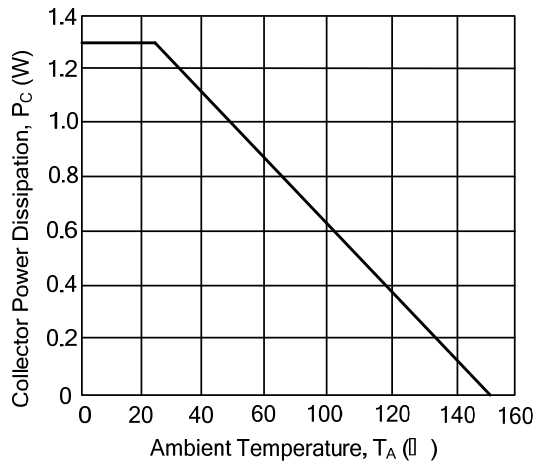


## TYPICAL CHARACTERISTICS



### ■ TYPICAL CHARACTERISTICS

Collector Power Dissipation vs. Ambient Temperature



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