



## 2SA1740

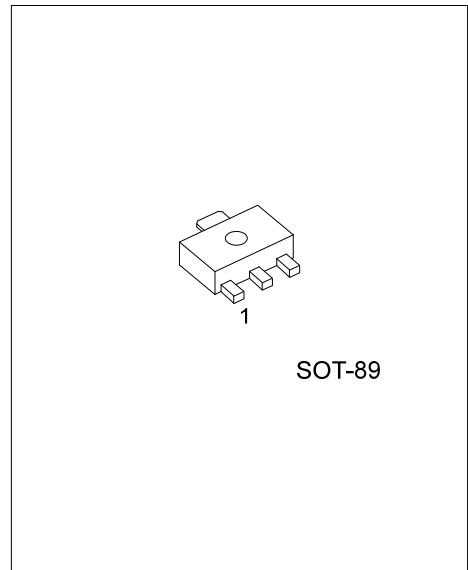
## PNP SILICON TRANSISTOR

### HIGH VOLTAGE DRIVER APPLICATION

#### ■ FEATURES

\*High breakdown voltage.

\*Excellent  $h_{FE}$  linearity.



#### ■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SA1740L-x-AB3-R	2SA1740G-x-AB3-R	SOT-89	B	C	E	Tape Reel

<p>2SA1740L-x-AB3-R</p> <p>(1) Packing Type (2) Package Type (3) Rank (4) Lead Free</p>	<p>(1) R: Tape Reel (2) AB3: SOT-89 (3) x: refer to Classification of <math>h_{FE}</math> (4) L: Lead Free, G: Halogen Free</p>
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■ ABSOLUTE MAXIMUM RATINGS (  $T_A=25^{\circ}\text{C}$ , unless otherwise specified )

PARAMETER	SYMBOL	RATINGS	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	$P_C$	0.5	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.

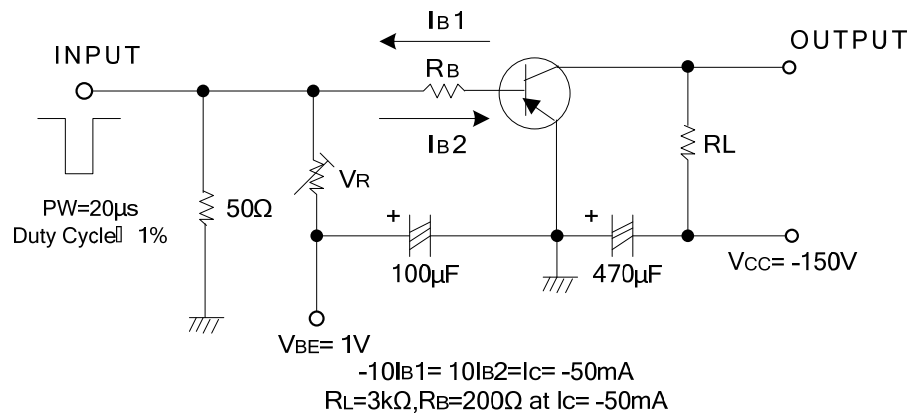
■ ELECTRICAL CHARACTERISTICS (  $T_A=25^{\circ}\text{C}$ , unless otherwise specified )

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 Gain	$h_{FE}$	$V_{CE} = -10\text{V}, I_C = -50\text{mA}$	60		200	
Collect-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C = -50\text{mA}, I_B = -5\text{mA}$		-0.8		V
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	$I_C = -50\text{mA}, I_B = -5\text{mA}$			-1.0	V
Output Capacitance	$C_{OB}$	$V_{CB} = -30\text{V}, f = 1\text{MHz}$		5		pF
Reverse Transfer Capacitance	$C_{RE}$	$V_{CB} = -30\text{V}, f = 1\text{MHz}$		4		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		$\mu\text{s}$

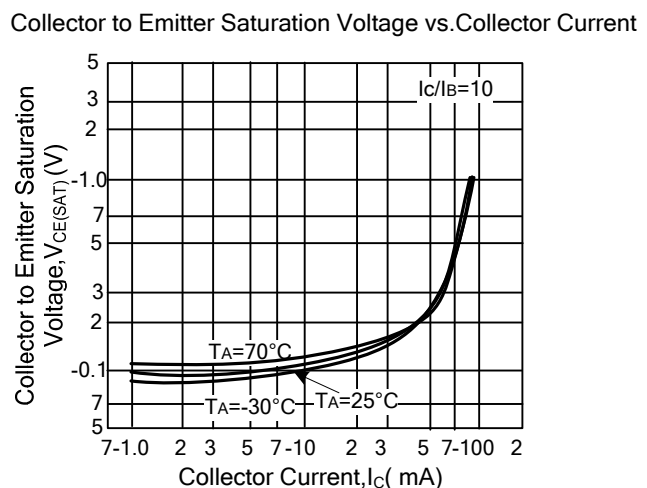
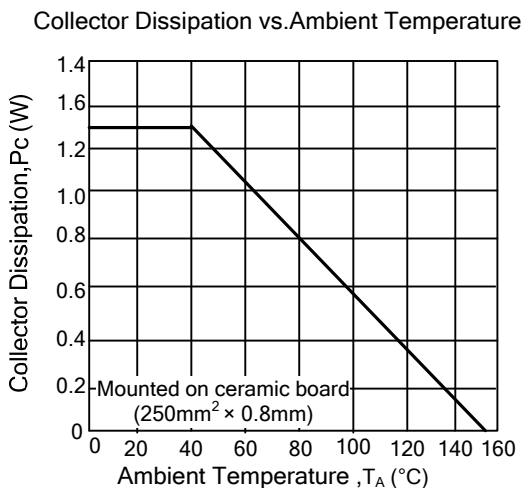
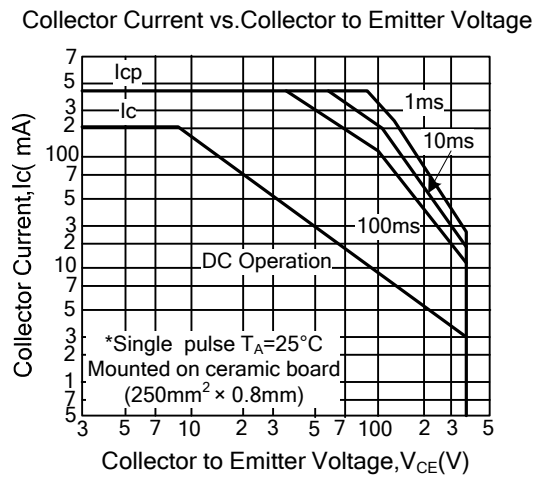
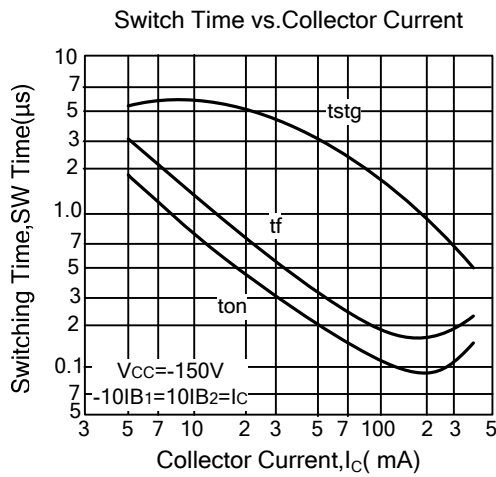
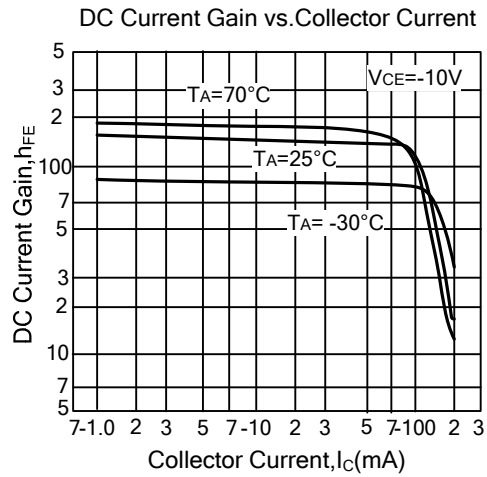
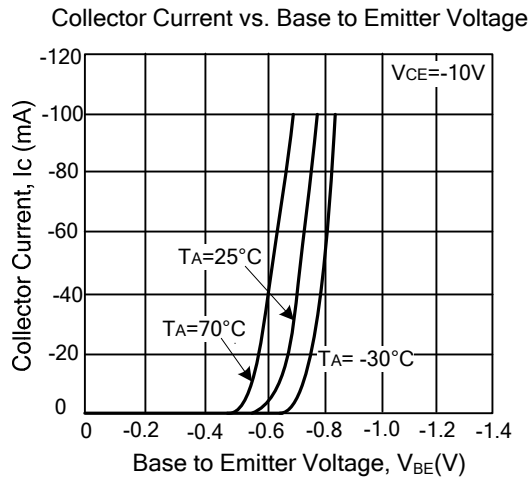
■ CLASSIFICATION OF  $h_{FE}$

RANK	D	E
RANGE	60-120	100-200

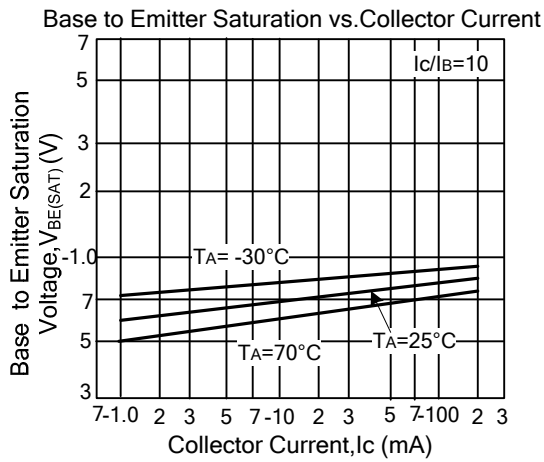
■ TEST CIRCUIT



## TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS(Cont.)



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