



2SA1740

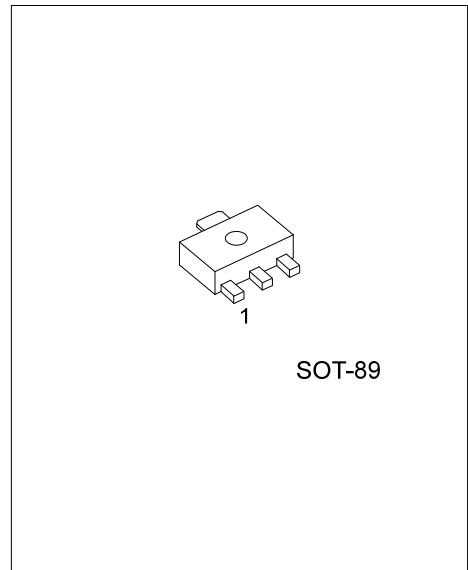
PNP SILICON TRANSISTOR

HIGH VOLTAGE DRIVER APPLICATION

■ FEATURES

*High breakdown voltage.

*Excellent h_{FE} linearity.



SOT-89

■ 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 h_{FE} (4) G: Halogen Free, L: Lead 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.

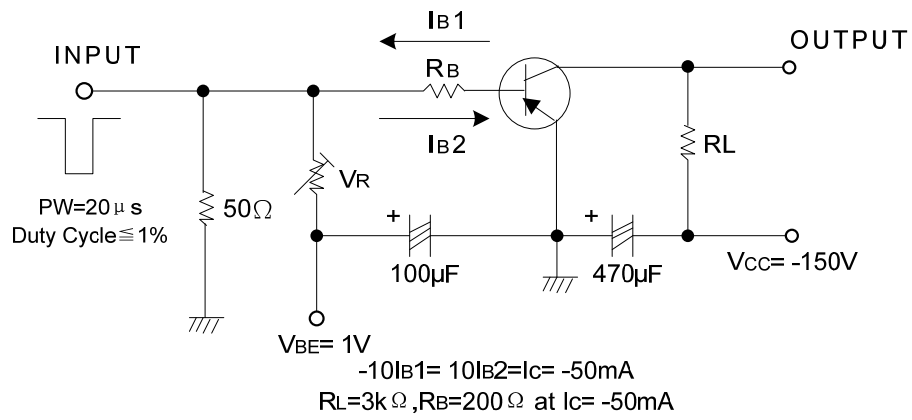
■ ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$, unless otherwise specified)

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	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = -4\text{V}, I_C = 0$			-0.1	μA
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		μs
Turn-Off Time	t_{OFF}	See test circuit		5.0		μs

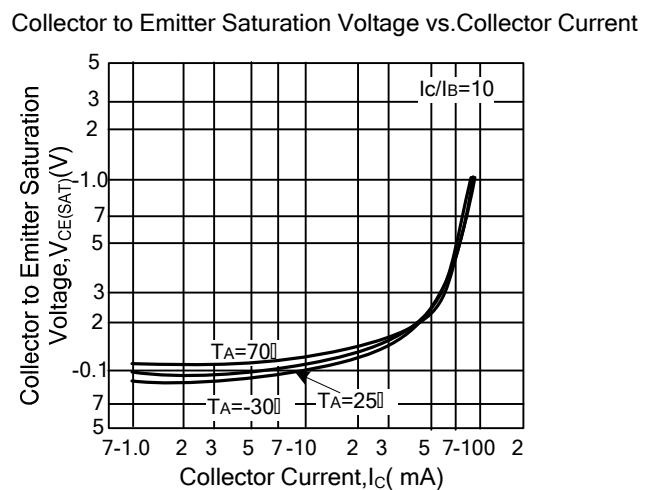
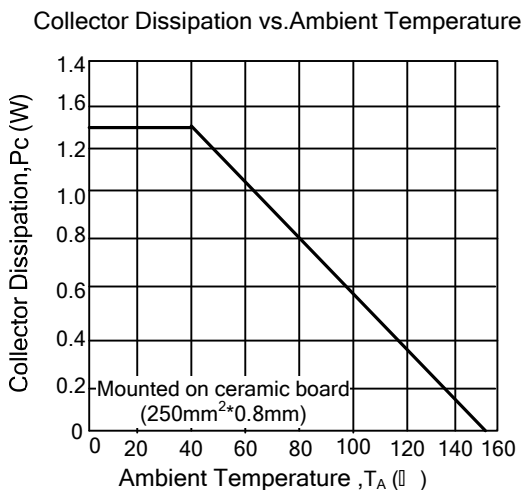
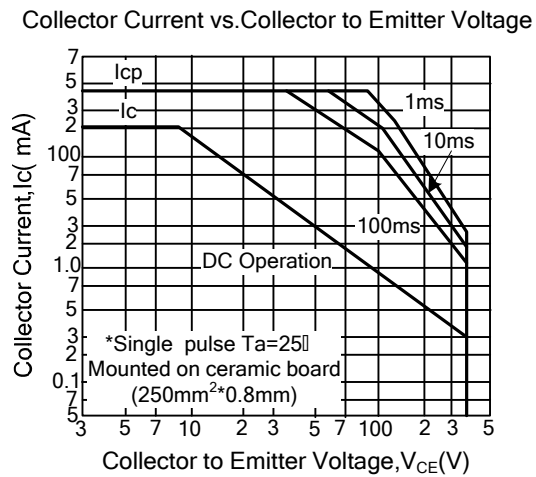
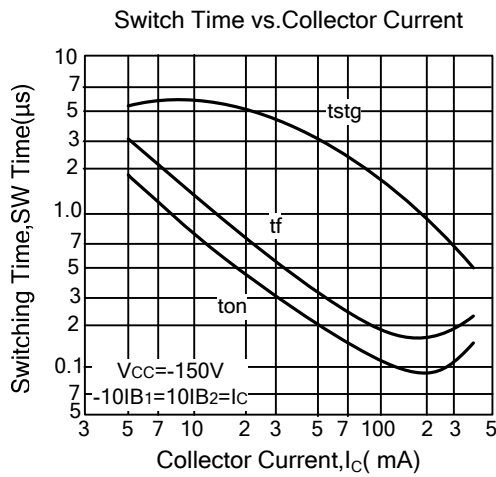
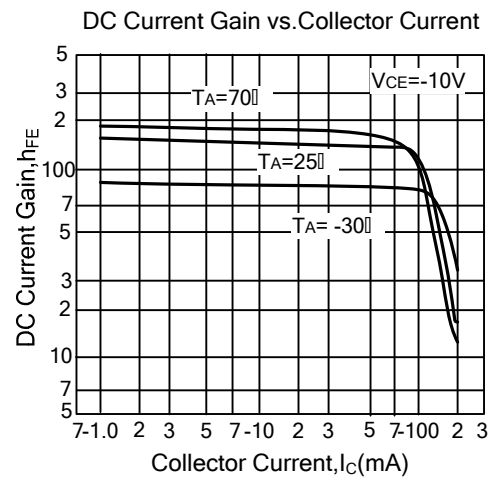
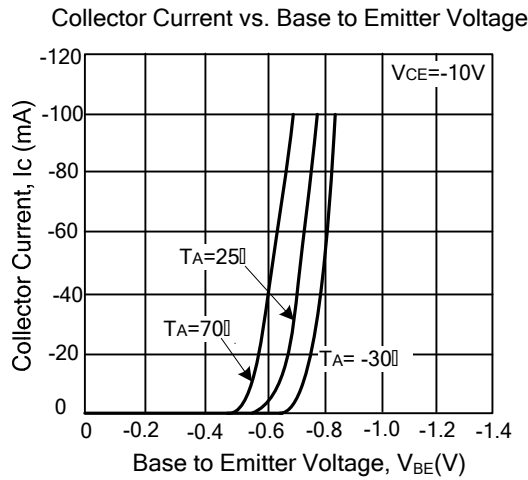
■ CLASSIFICATION OF h_{FE}

RANK	D	E
RANGE	60-120	100-200

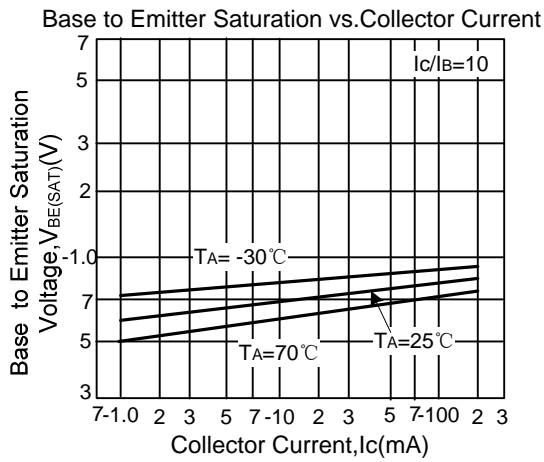
■ TEST CIRCUIT



TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS(Cont.)



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