



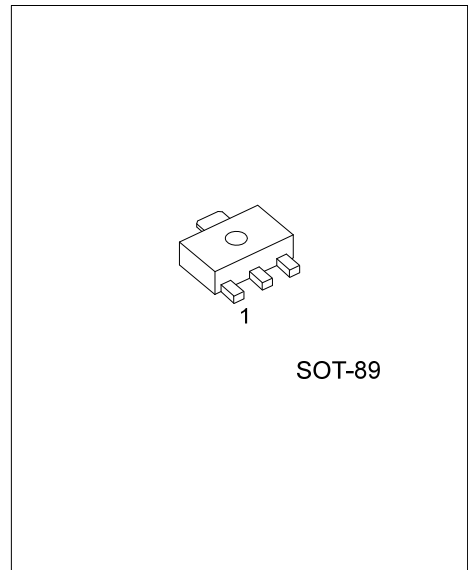
2SA1740

PNP SILICON TRANSISTOR

HIGH VOLTAGE DRIVER APPLICATION

■ FEATURES

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



Lead-free: 2SA1740L
Halogen-free: 2SA1740G

■ ORDERING INFORMATION

Ordering Number			Package	Pin Assignment			Packing
Normal	Lead Free Plating	Halogen Free		1	2	3	
2SA1740-x-AB3-R	2SA1740L-x-AB3-R	2SA1740G-x-AB3-R	SOT-89	B	C	E	Tape Reel

<p>2SA1740L-x-AB3-R</p> <ul style="list-style-type: none"> (1) Packing Type (2) Package Type (3) Rank (4) Lead Plating 	<ul style="list-style-type: none"> (1) R: Tape Reel (2) AB3: SOT-89 (3) x: refer to Classification of h_{FE} (4) G: Halogen Free, L: Lead Free, 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}	-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	°C
Storage Temperature	T_{STG}	-55 ~ +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.

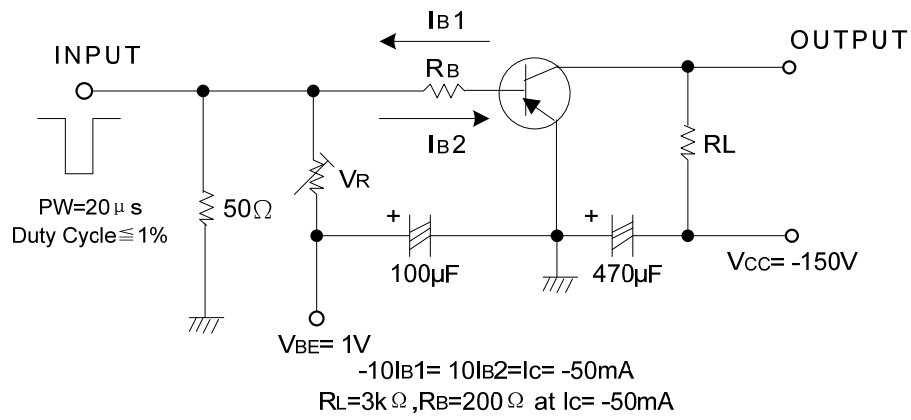
■ ELECTRICAL CHARACTERISTICS (Ta=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collect-Base Breakdown Voltage	BV_{CBO}	$I_C = -10\mu A, I_E = 0$	-400			V
Collect-Emitter Breakdown Voltage	BV_{CEO}	$I_C = -1mA, I_B = 0, R_{BE} = \infty$	-400			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E = -10\mu A, I_C = 0$	-5			V
Collector Cutoff Current	I_{CBO}	$V_{CB} = -300V, I_E = 0$			-0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = -4V, I_C = 0$			-0.1	μA
DC Current Gain	h_{FE}	$V_{CE} = -10V, I_C = -50mA$	60		200	
Collect-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C = -50mA, I_B = -5mA$		-0.8		V
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	$I_C = -50mA, I_B = -5mA$			-1.0	V
Output Capacitance	C_{OB}	$V_{CB} = -30V, f = 1MHz$		5		pF
Reverse Transfer Capacitance	C_{RE}	$V_{CB} = -30V, f = 1MHz$		4		pF
Gain-Bandwidth Product	f_T	$V_{CE} = -30V, I_C = -10mA$		70		MHz
Turn-On Time	t_{ON}	See test circuit		0.25		μs
Turn-Off Time	t_{OFF}	See test circuit		5.0		μs

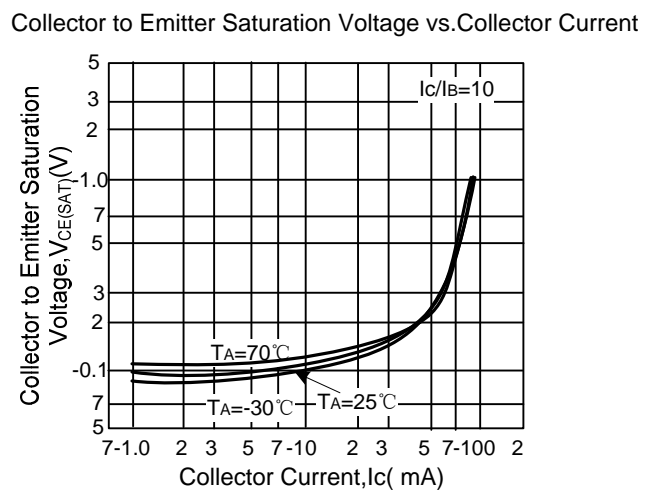
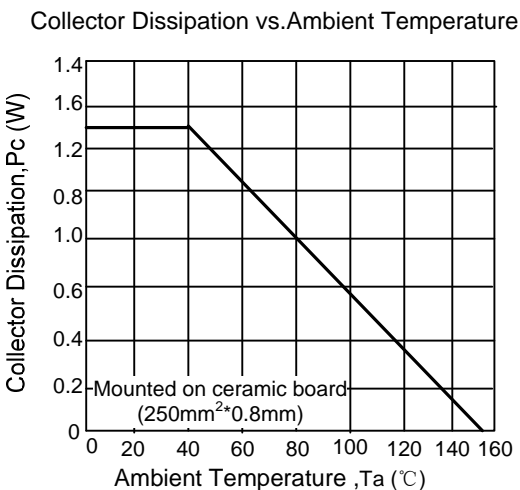
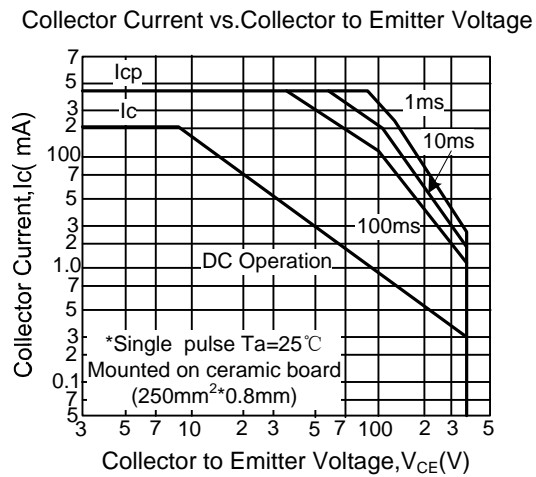
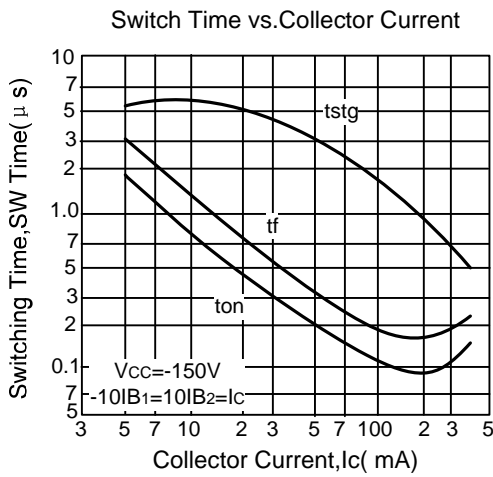
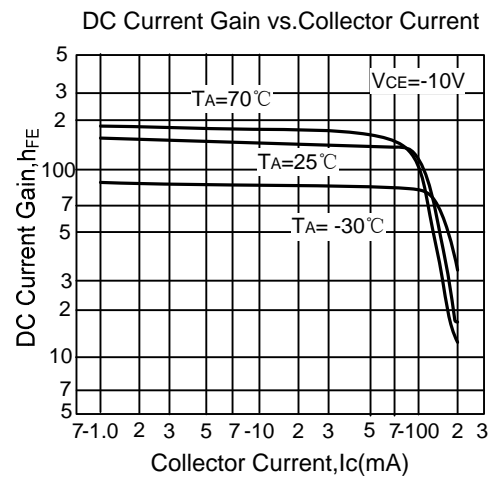
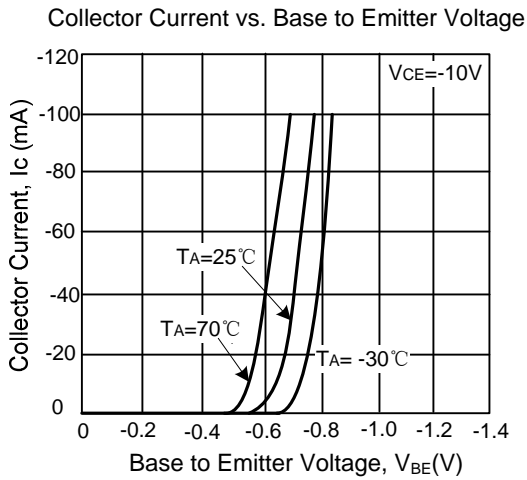
■ CLASSIFICATION OF h_{FE}

RANK	D	E
RANGE	60-120	100-200

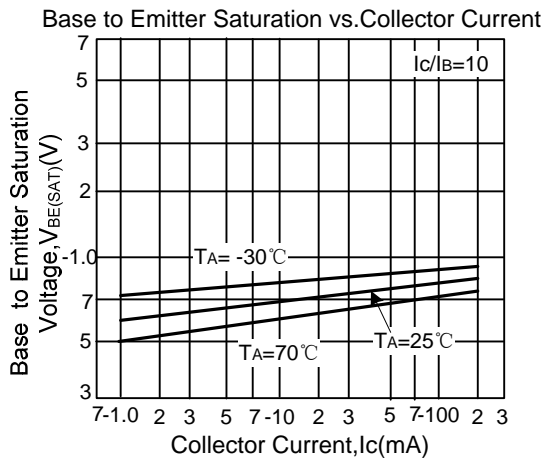
■ TEST CIRCUIT



TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS(Cont.)



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