



2SA1740

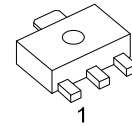
PNP SILICON TRANSISTOR

HIGH VOLTAGE DRIVER APPLICATION

■ FEATURES

*High breakdown voltage.

*Excellent h_{FE} linearity.



SOT-89

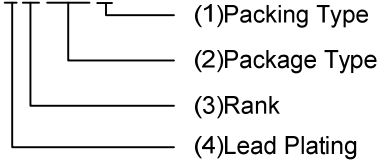
Lead-free: 2SA1740L

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

2SA1740L-x-AB3-R



(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

■ 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.

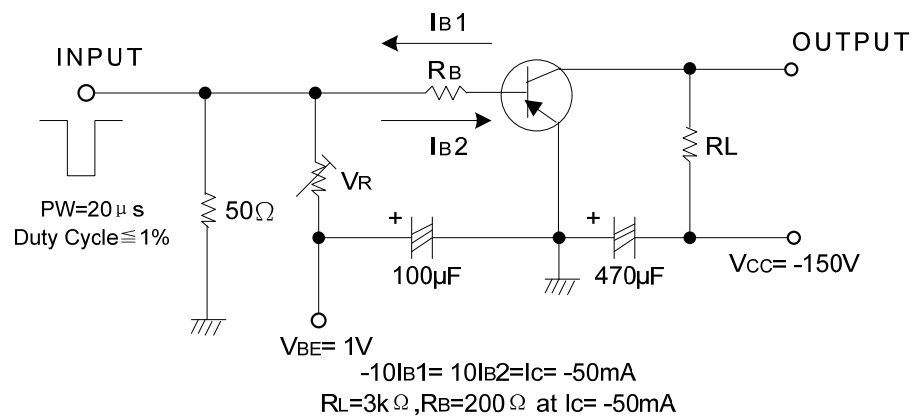
■ ELECTRICAL CHARACTERISTICS (Ta=25°C, unless otherwise specified)

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}

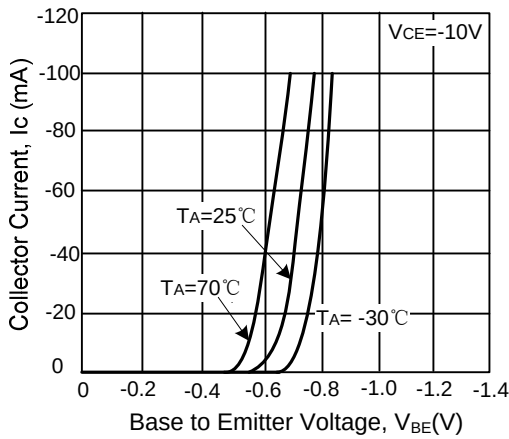
RANK	D	E
RANGE	60-120	100-200

■ TEST CIRCUIT

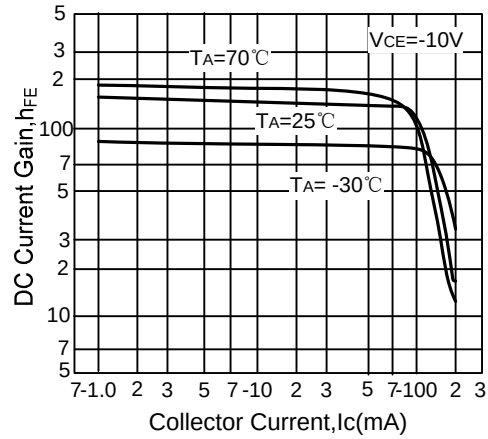


TYPICAL CHARACTERISTICS

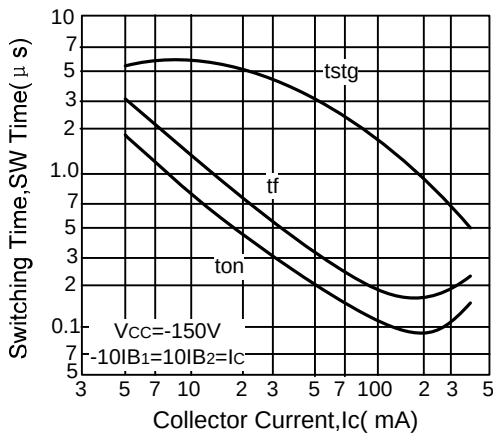
Collector Current vs. Base to Emitter Voltage



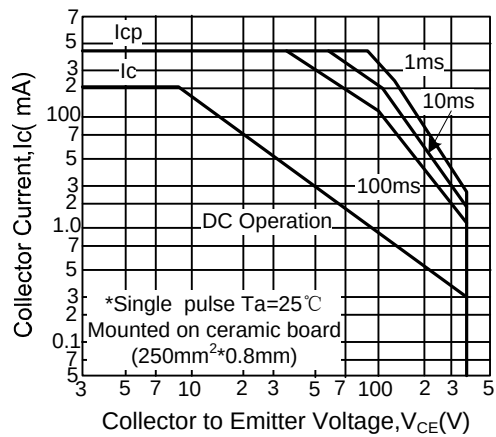
DC Current Gain vs. Collector Current



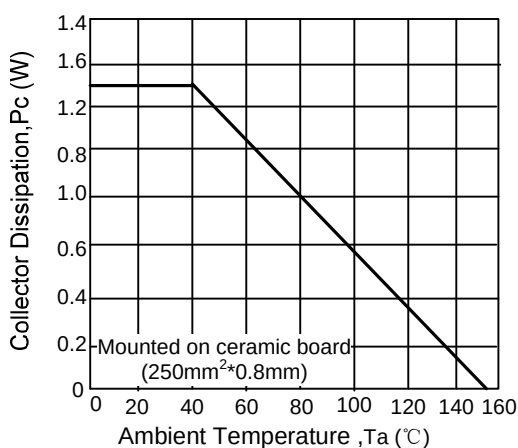
Switch Time vs. Collector Current



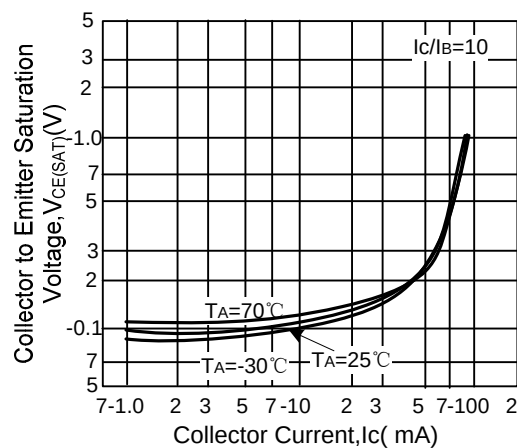
Collector Current vs. Collector to Emitter Voltage



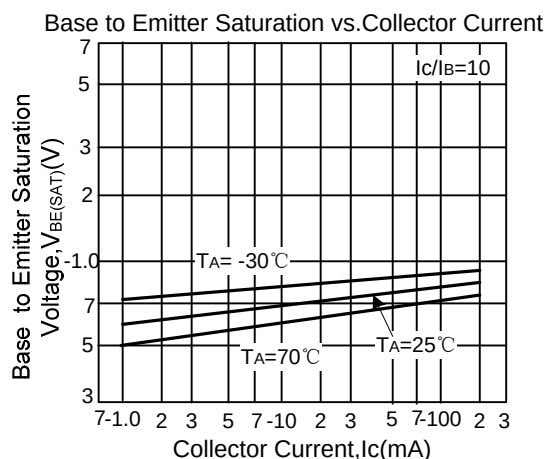
Collector Dissipation vs. Ambient Temperature



Collector to Emitter Saturation Voltage vs. Collector Current



■ TYPICAL CHARACTERISTICS(Cont.)



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