



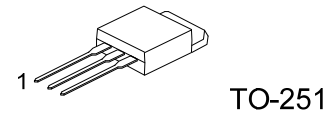
2SA1700

PNP EPITAXIAL SILICON TRANSISTOR

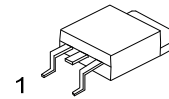
HIGH VOLTAGE DRIVER APPLICATION

■ FEATURES

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



TO-251

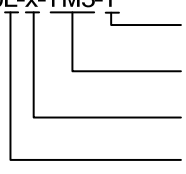


TO-252

■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SA1700L-x-TM3-T	2SA1700G-x-TM3-T	TO-251	B	C	E	Tube
2SA1700L-x-TN3-R	2SA1700G-x-TN3-R	TO-252	B	C	E	Tape Reel
2SA1700L-x-TN3-T	2SA1700G-x-TN3-T	TO-252	B	C	E	Tube

Note: Pin Assignment: B: Base C: Collector E: Emitter

2SA1700L-x-TM3-T  (1) Packing Type (2) Package Type (3) Rank (4) Lead Free	(1) T: Tube, R: Tape Reel (2) TM3: TO-251, TN3: TO-252 (3) x: refer to Classification of h_{FE} (4) G: Halogen Free, L: Lead Free
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■ ABSOLUTE MAXIMUM RATING (T_A=25°C)

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
Power Dissipation	P _D	1	W
		10 (T _C =25°C)	W
Junction Temperature	T _J	150	°C
Storage Temperature	T _{STG}	-55 ~ +150	°C

Note 1. 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.

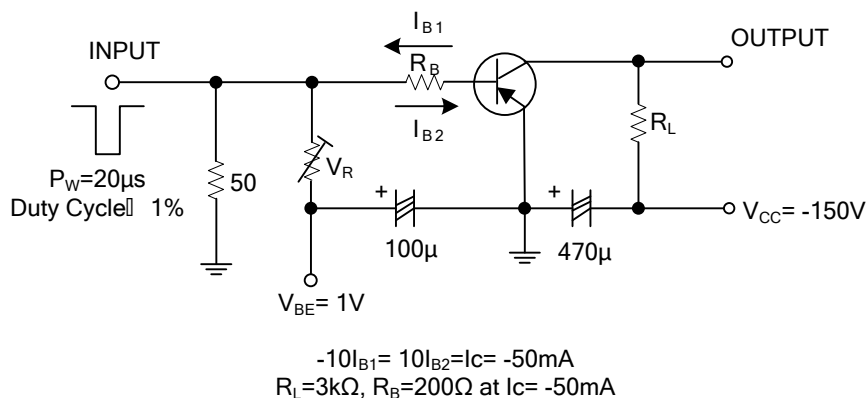
■ ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV _{CBO}	I _C = -10μA, I _E =0	-400			V
Collector-Emitter Breakdown Voltage	BV _{CEO}	I _C = -1mA, I _B =0, R _{BE} =∞	-400			V
Emitter-Base Breakdown Voltage	BV _{EBO}	I _E = -10μA, 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 Transfer Ratio	h _{FE}	V _{CE} = -10V, I _C = -50mA	60		200	
Collector-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		μs

■ CLASSIFICATION OF h_{FE}

RANK	D	E
RANGE	60-120	100-200

■ TEST CIRCUIT (Unit : (resistance : Ω , capacitance : F))



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