



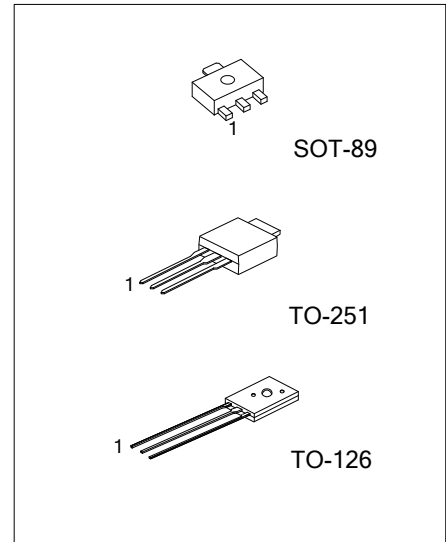
2SB824

PNP SILICON TRANSISTOR

PNP PLANAR SILICON TRANSISTOR

FEATURES

* Low collector-to-emitter saturation voltage:
 $V_{CE(SAT)} = -0.4V \text{ max} / I_C = -3A, I_B = -0.3A$



ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SB824L-x-AB3-R	2SB824G-x-AB3-R	SOT-89	B	C	E	Tape Reel
2SB824L-x-T60-K	2SB824G-x-T60-K	TO-126	B	C	E	Bulk
2SB824L-x-TM3-T	2SB824G-x-TM3-T	TO-251	B	C	E	Tube

<p>2SB824L-x-AB3-R</p> <p>(1) Packing Type (2) Package Type (3) Rank (4) Lead Free</p>	<p>(1) K: Bulk, R: Tape Reel, T: Tube (2) T60: TO-126, AB3: SOT-89, TM3: TO-251 (3) x: refer to Classification of h_{FE1} (4) G: Halogen Free, L: Lead Free</p>
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■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C)

PARAMETER		SYMBOL	RATINGS	UNIT
Collector to Base Voltage		V _{CBO}	-60	V
Collector to Emitter Voltage		V _{CEO}	-50	V
Emitter to Base Voltage		V _{EBO}	-6	V
Collector Current		I _C	-5	A
Collector Current (Pulse)		I _{CP}	-9	A
Collector Dissipation	SOT-89	P _C	0.5	W
	TO-126/ TO-251		1	
Junction Temperature		T _J	+150	°C
Storage Temperature		T _{STG}	-40 ~ +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.

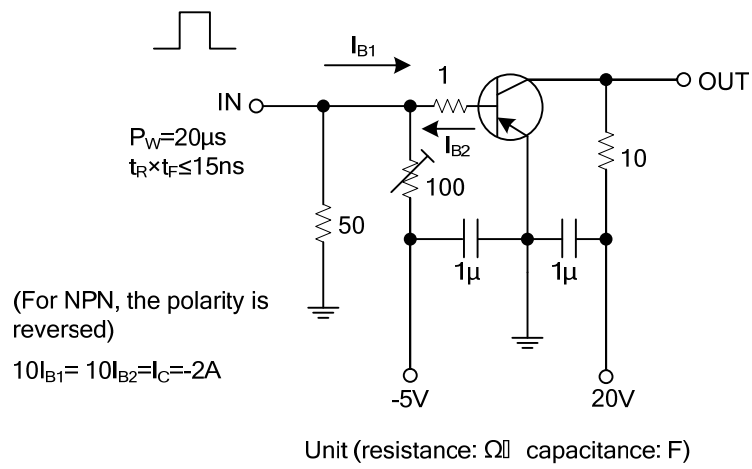
■ ELECTRICAL CHARACTERISTICS (T_A=25°C)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-to-Base Breakdown Voltage	BV _{CBO}	I _C = -1mA, I _E = 0	-60			V
Collector-to-Emitter Breakdown Voltage	BV _{CEO}	I _C = -1mA, R _{BE} = ∞	-50			V
Emitter-to-Base Breakdown Voltage	BV _{EBO}	I _C = 0, I _E = -1mA	-6			V
Collector Cut-Off Current	I _{CBO}	V _{CB} = -40V, I _E = 0			-0.1	mA
Emitter Cut-Off Current	I _{EBO}	V _{EB} = -4V, I _C = 0			-0.1	mA
DC Current Gain	h _{FE1}	V _{CE} = -2V, I _C = -1A	70		360	
	h _{FE2}	V _{CE} = -2V, I _C = -3A	30			
Gain Bandwidth Product	f _T	V _{CE} = -5V, I _C = -1A		30		MHZ
Output Capacitance	C _{OB}	V _{CB} = -10V, f = 1MHz		100		pF
Collector-to-Emitter Saturation Voltage	V _{CE(SAT)}	I _C = -3A, I _B = -0.3A			-0.4	V
Turn-ON Time	t _{ON}	See specified test circuit		0.1		μs
Storage Time	t _{STG}	See specified test circuit		1.4		μs
Fall Time	t _F	See specified test circuit		0.2		μs

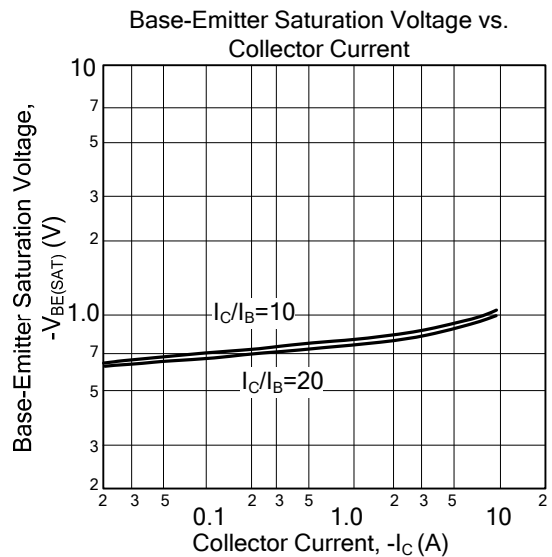
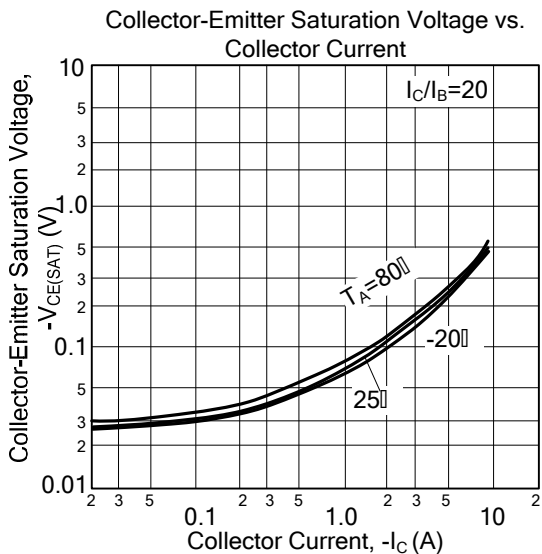
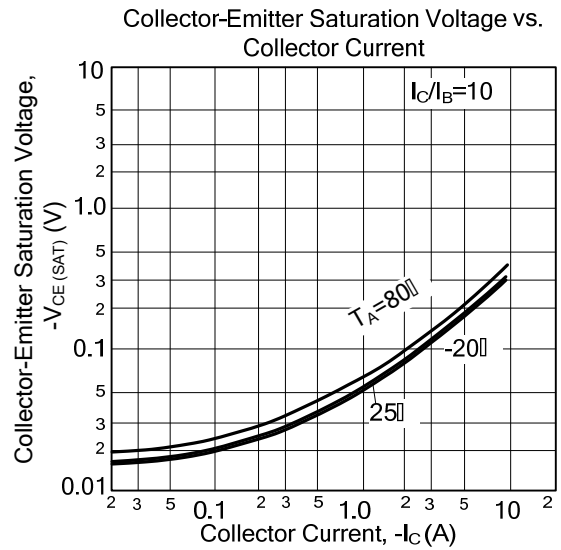
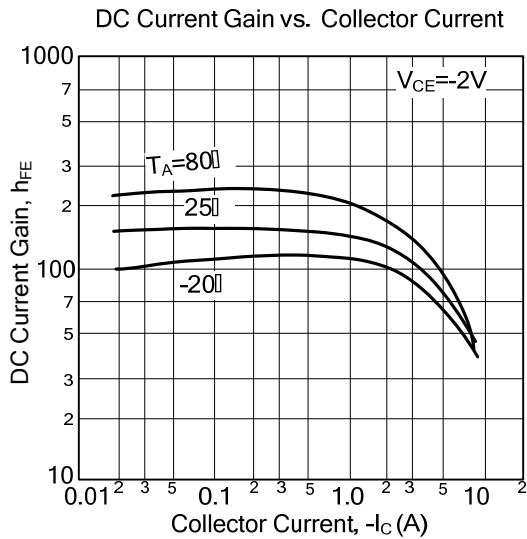
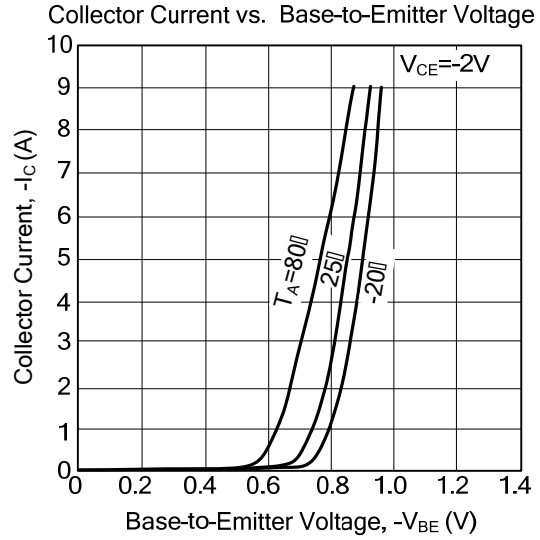
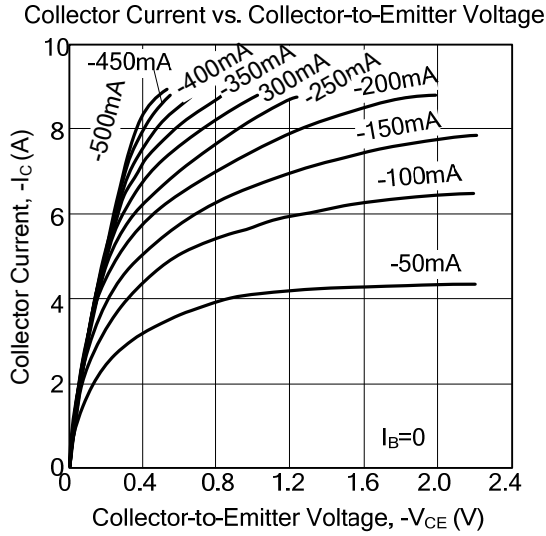
■ CLASSIFICATION of h_{FE1}

RANK	Q	R	S
RANGE	70-140	100-200	180-360

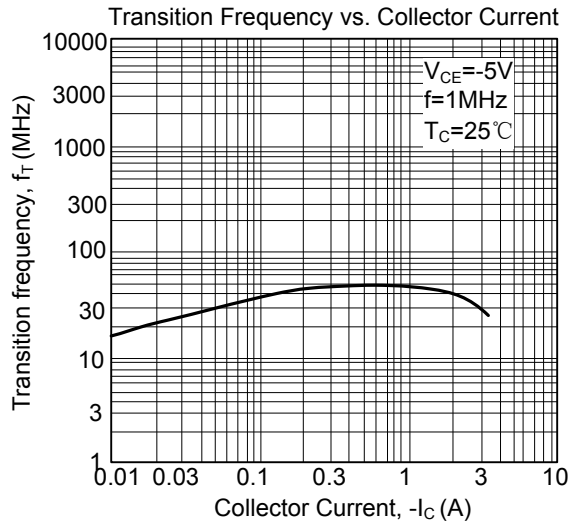
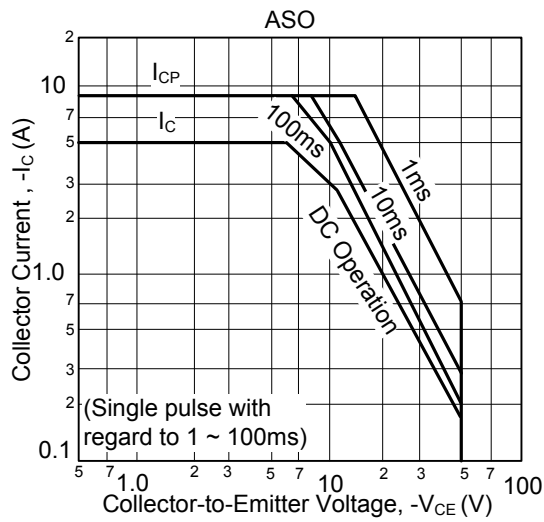
■ SWITCHING TIME TEST CIRCUIT



■ TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS(Cont.)



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