



2SA2016

PNP PLANAR TRANSISTOR

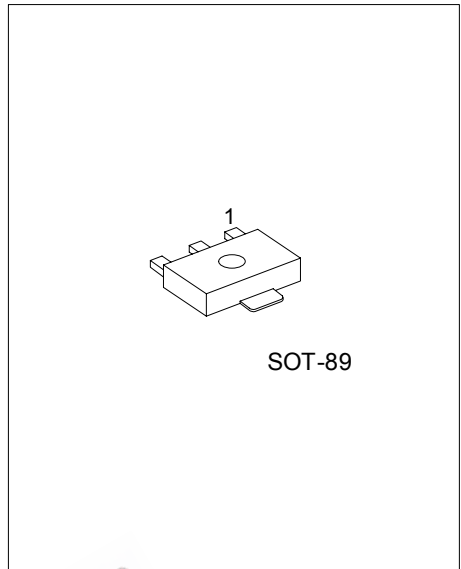
PNP EPITAXIAL PLANAR TRANSISTOR

■ APPLICATIONS

* Relay drivers, lamp drivers, motor drivers, strobes.

■ FEATURES

- *High current capacitance.
- *Low collector-to-emitter saturation voltage.
- *High-speed switching
- *High allowable power dissipation.



*Pb-free plating product number: 2SA2016L

■ ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Normal	Lead Free Plating		1	2	3	
2SA2016-AB3-R	2SA2016L-AB3-R	SOT-89	B	C	E	Tape Reel

<p>2SA2016L-AB3-R</p> <p>(1) Packing Type</p> <p>(2) Package Type</p> <p>(3) Lead Plating</p>	<p>(1) R: Tape Reel</p> <p>(2) AB3: SOT-89</p> <p>(3) L: Lead Free Plating Blank: Pb/Sn</p>
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■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

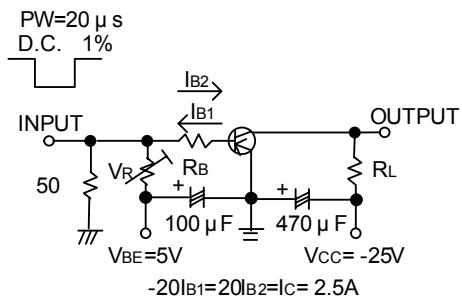
PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	-50	V
Collector-Emitter Voltage	V_{CEO}	-50	V
Emitter-Base Voltage	V_{EBO}	-6	V
Collector Dissipation Mounted on a ceramic board (250mm ² *0.8mm)	P_c	1.3	W
Collector Dissipation (Tc=25°C)	P_c	3.5	W
Collector Current	I_c	-7	A
Collector Current	I_{cp}	-10	A
Base Current	I_B	-1.2	A
Junction Temperature	T_J	150	°C
Storage Temperature	T_{STG}	-55 to +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 (Tc=25 °C)

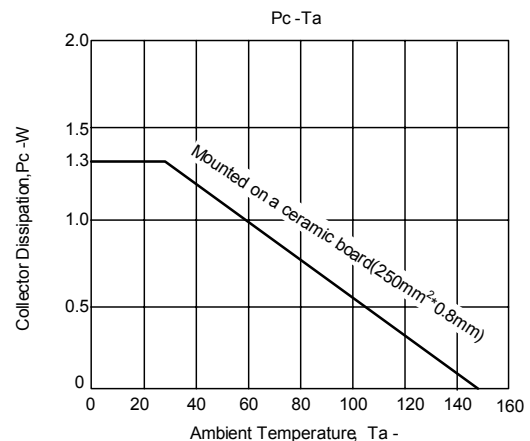
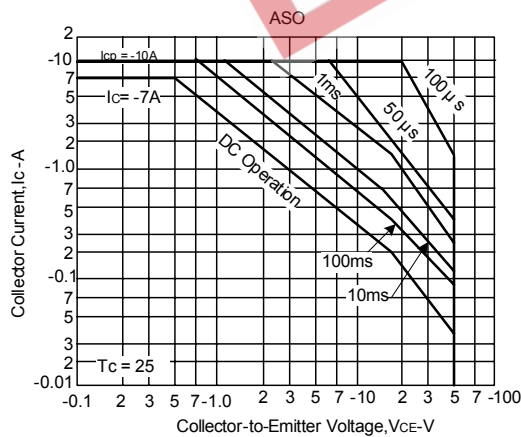
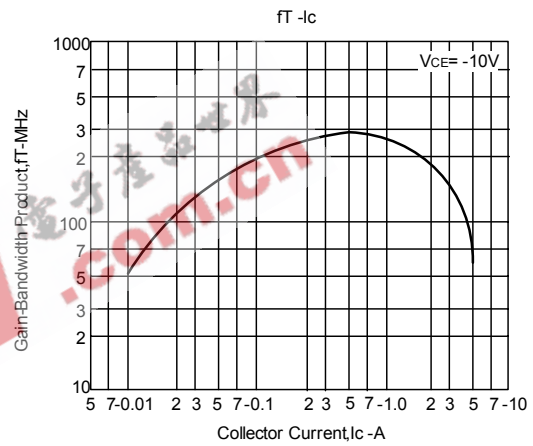
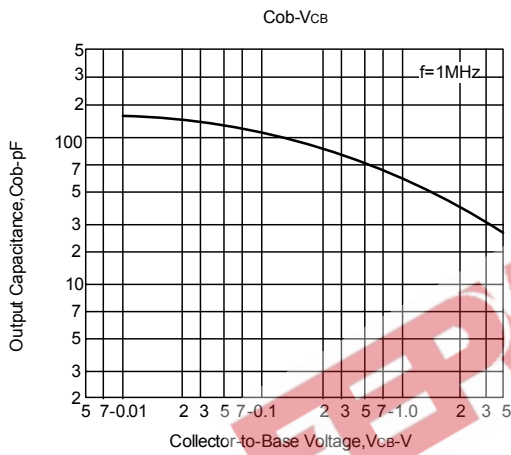
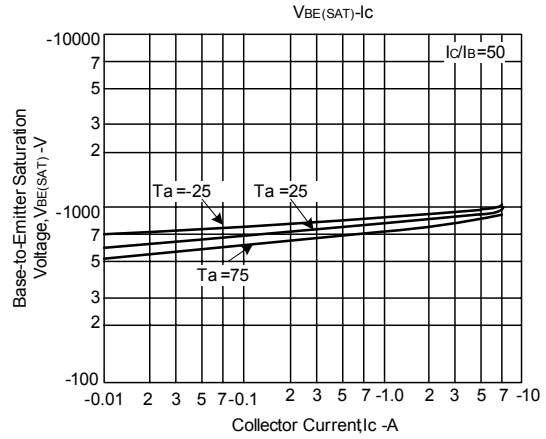
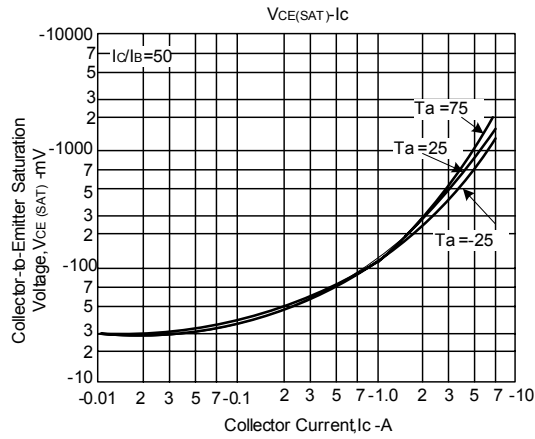
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-to-Base Breakdown Voltage	BV_{CBO}	$I_c = -10\mu A, I_E = 0$	-50			V
Collector-to- Emitter Breakdown Voltage	BV_{CEO}	$I_c = -1mA, R_{BE} = \infty$	-50			V
Emitter-to-Base Breakdown Voltage	BV_{EBO}	$I_c = 0, I_E = -10\mu A$	-6			V
Collector Cut-Off Current	I_{CBO}	$V_{CB} = -40V, I_E = 0$			-0.1	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB} = -4V, I_C = 0$			-0.1	μA
DC Current Gain	h_{FE}	$V_{CE} = -2V, I_c = -500mA$	200		560	
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_c = -3.5A, I_B = -175mA$		-0.23	-0.39	V
		$I_c = -2A, I_B = -40mA$		-0.24	-0.40	V
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	$I_c = -2A, I_B = -40mA$		-0.83	-1.2	V
Gain Bandwidth Product	f_T	$V_{CE} = -10V, I_c = -500mA$		290		MHz
Output Capacitance	C_{ob}	$V_{CB} = -10V, f = 1MHz$		50		pF
Turn-on Time	t_{ON}	See specified Test Circuit		40		ns
Storage Time	t_{STG}	See specified Test Circuit		225		ns
Fall Time	t_F	See specified Test Circuit		25		ns

■ SWITCHING TIME TEST CIRCUIT

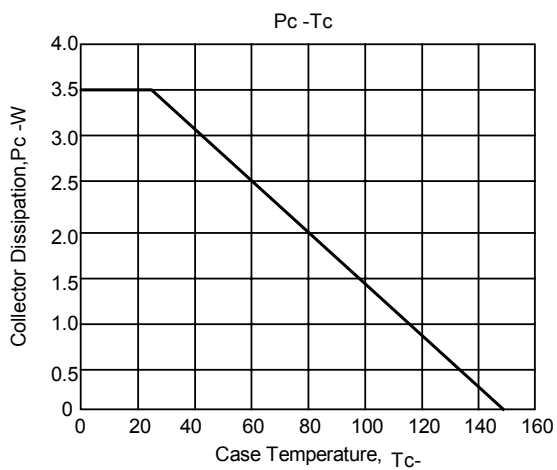
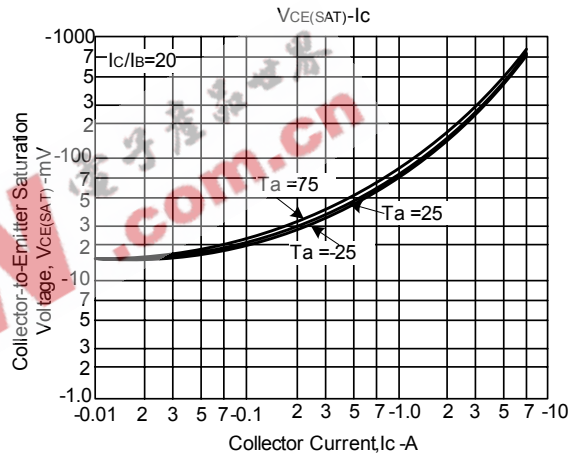
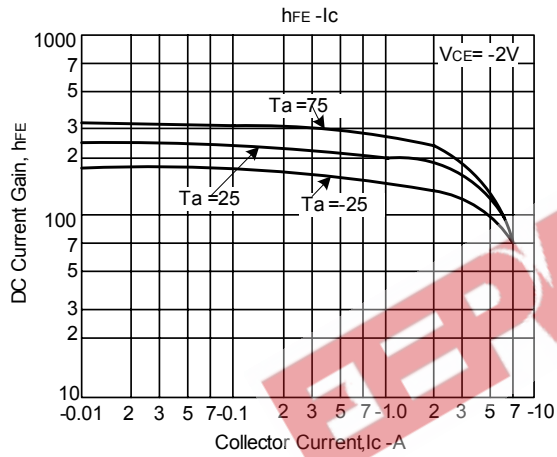
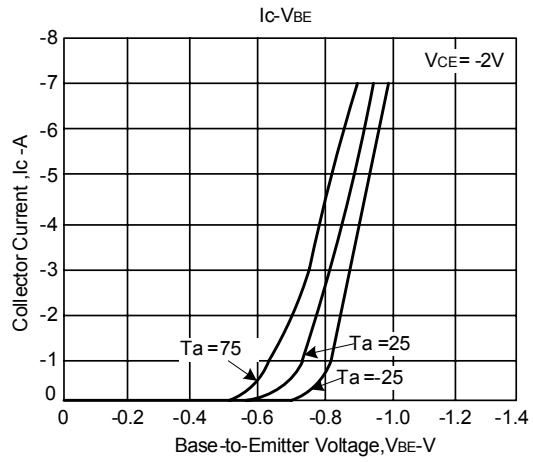
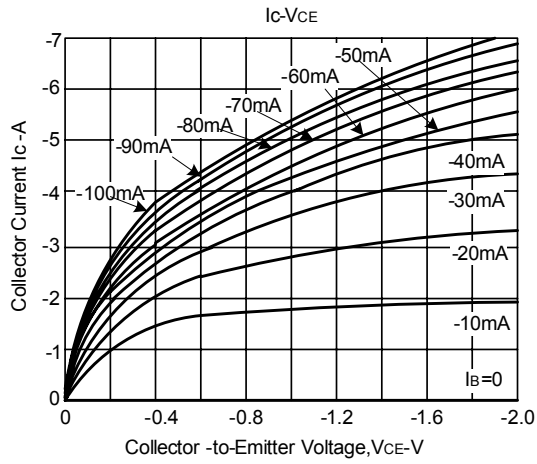


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TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS(Cont.)



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