

SANYO	No.3880	2SC4737
	NPN Epitaxial Planar Silicon Transistor 50V/2A Driver Applications	

Applications

- Suitable for use in switching of L load (motor drivers, printer hammer drivers, relay drivers).

Features

- High DC current gain.
- Wide ASO.
- On-chip zener diode of $60 \pm 10V$ between collector and base.
- Uniformity in collector-to-base breakdown voltage.
- High inductive load handling capability.

Absolute Maximum Ratings at $T_a = 25^\circ C$

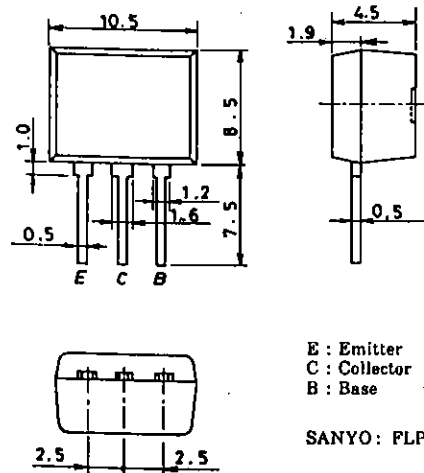
		With Zener diode ($60 \pm 10V$)		unit
Collector to Base Voltage	V_{CB0}		50	V
Collector to Emitter Voltage	V_{CEO}	"	50	V
Emitter to Base Voltage	V_{EBO}		6	V
Collector Current	I_C		2	A
Peak Collector Current	i_{cp}		4	A
Base Current	I_B		0.4	A
Collector Dissipation	P_C		1.5	W
Junction Temperature	T_j		150	$^\circ C$
Storage Temperature	T_{stg}		-55 to +150	$^\circ C$

Electrical Characteristics at $T_a = 25^\circ C$

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 40V, I_E = 0$			10	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 5V, I_C = 0$			2	mA
DC Current Gain	h_{FE}	$V_{CE} = 5V, I_C = 1A$	1000	4000		
Gain-Bandwidth Product	f_T	$V_{CE} = 5V, I_C = 1A$		180		MHz
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = 1A, I_B = 4mA$		1.0	1.5	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = 1A, I_B = 4mA$			2.0	V
Inductive load handling capability	Es/b	$L = 100mH, R_{BE} = 100\Omega$	25			mj

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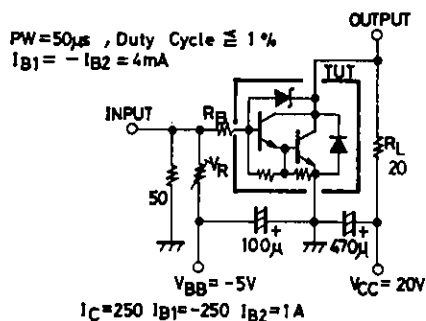
Package Dimensions 2084
(unit: mm)



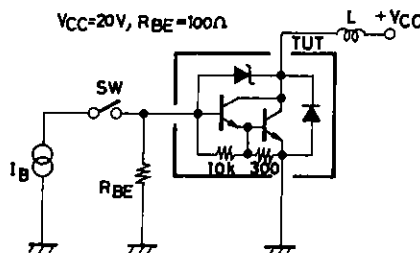
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			min	typ	max	unit
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 100\mu A, I_E = 0$	50	60	70	V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 1mA, R_{BE} = \infty$	50	60	70	V
Turn-on Time	t_{on}	See specified Test Circuit.		0.2		μs
Storage Time	t_{stg}	"		3.5		μs
Fall Time	t_f	"		0.5		μs

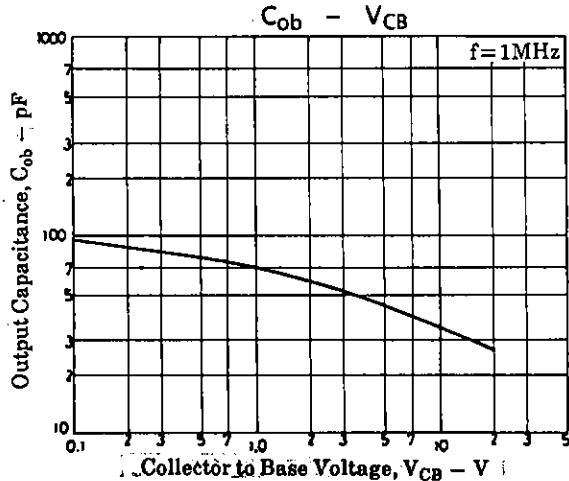
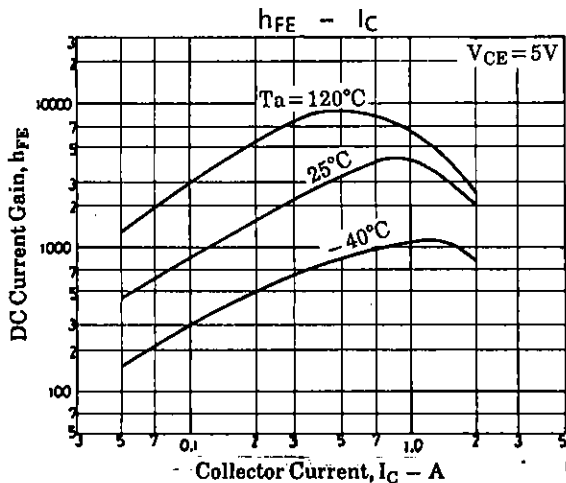
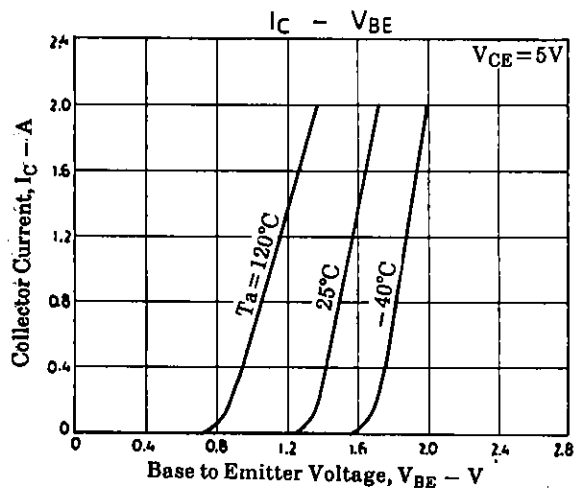
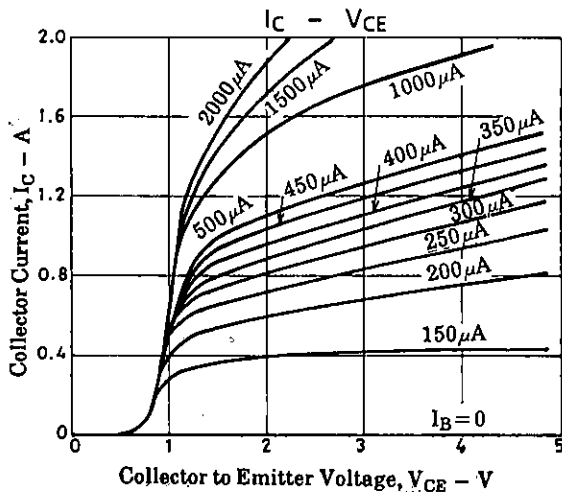
Switching Time Test Circuit

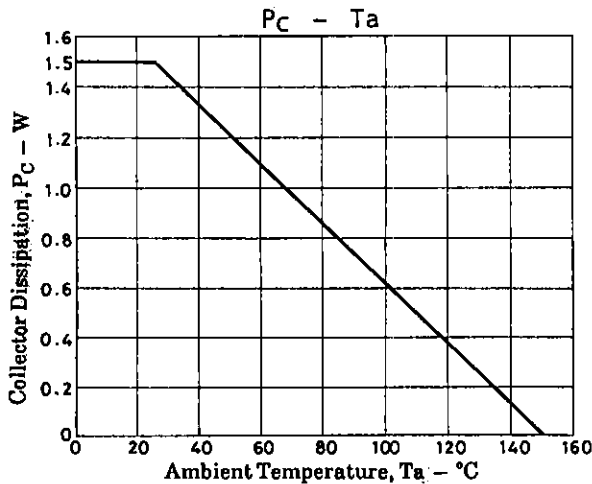
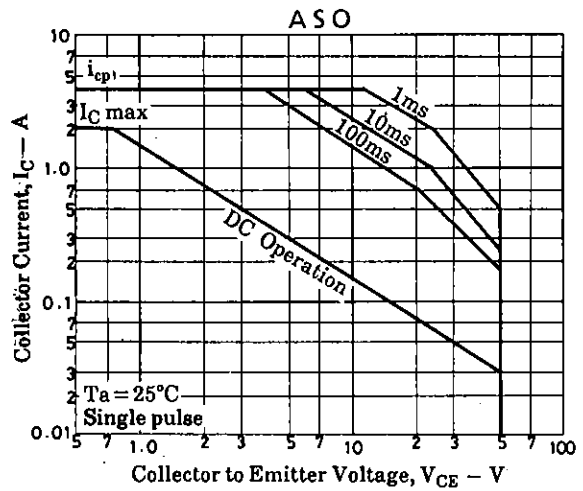
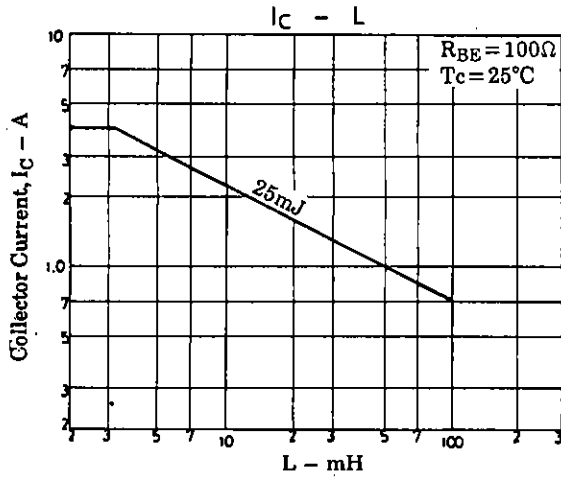
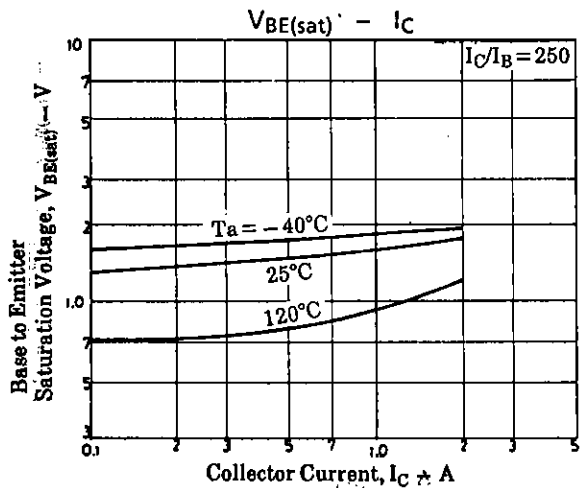
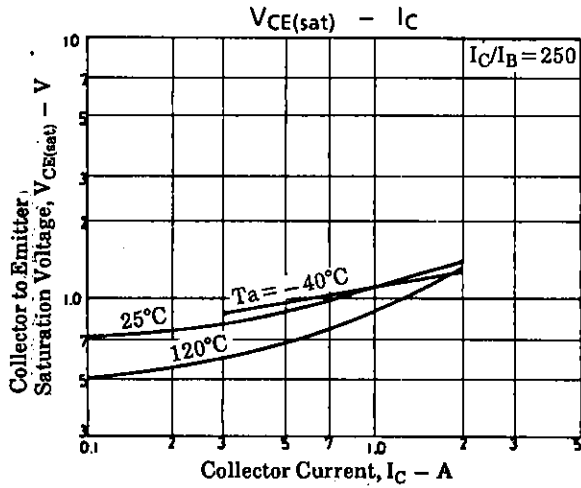


Es/b Test Circuit



Unit (resistance: Ω , capacitance: F)





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