



No.3036

2SC4491

NPN Epitaxial Planar Silicon Transistor

L Load (Various Drivers)
Switching Applications

Applications

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

Features

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

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

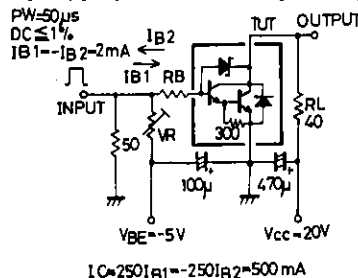
			unit
Collector to Base Voltage	V_{CB0}	※50	V
Collector to Emitter Voltage	V_{CE0}	※50	V
Emitter to Base Voltage	V_{EB0}	6	V
Collector Current	I_C	1.2	A
Collector Current(Pulse)	I_{CP}	2.5	A
Collector Dissipation	P_C	1	W
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature	T_{stg}	-55 to +150	$^\circ C$

※ : On-chip zener diode ($60 \pm 10V$)

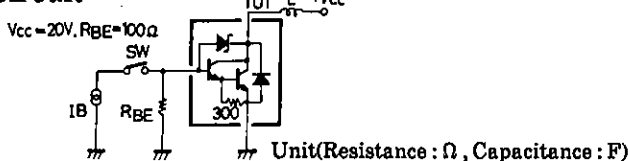
Electrical Characteristics at $T_a = 25^\circ C$

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB} = 40V, I_E = 0$			10	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 5V, I_C = 0$			10	μA
DC Current Gain	h_{FE}	$V_{CE} = 5V, I_C = 500mA$	1000	5000		
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = 500mA, I_B = 2mA$		1.0	1.5	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = 500mA, I_B = 2mA$			2.0	V
Inductive Load	Es/b	$L = 100mH, R_{BE} = 100\Omega$	15			mJ
Handling Capability						
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}	〃		2.2		μs
Fall Time	t_f	〃		0.4		μs

Switching Time Test Circuit

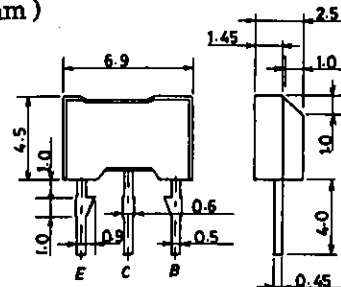


Es/b Test Circuit



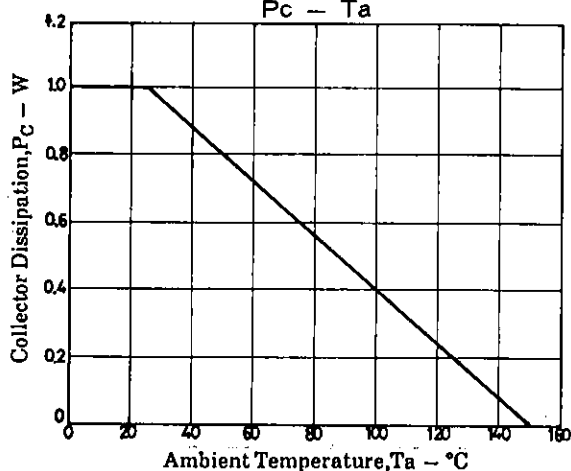
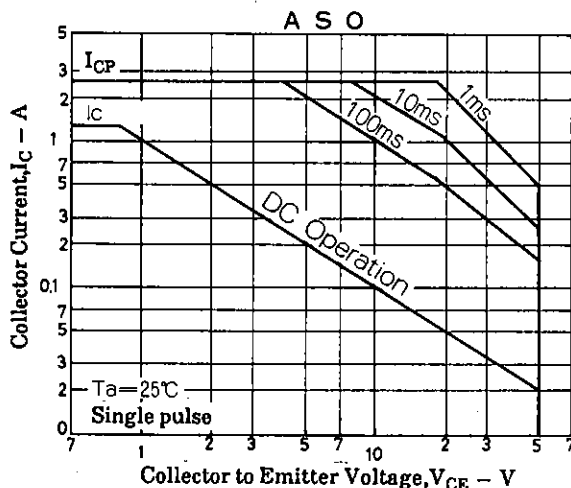
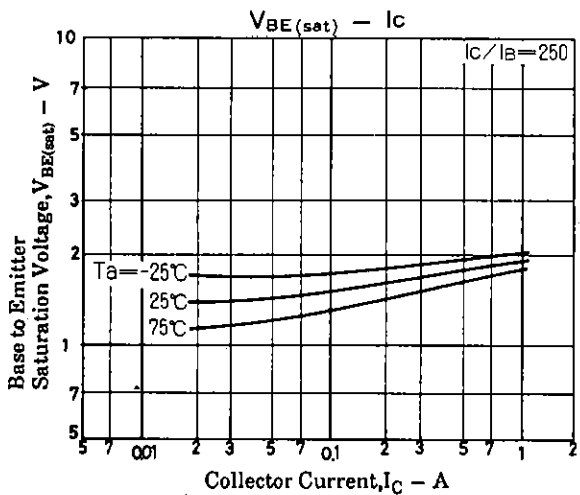
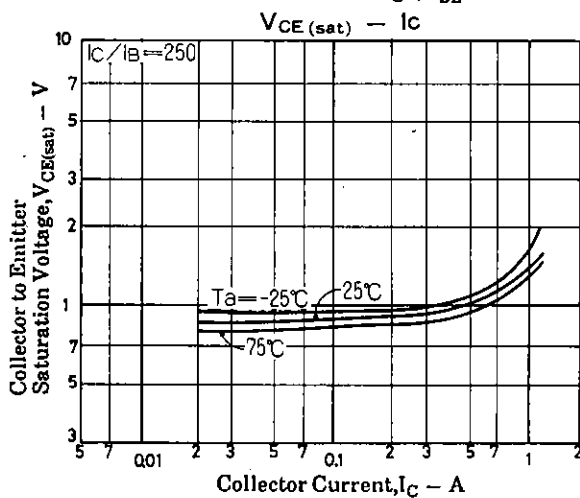
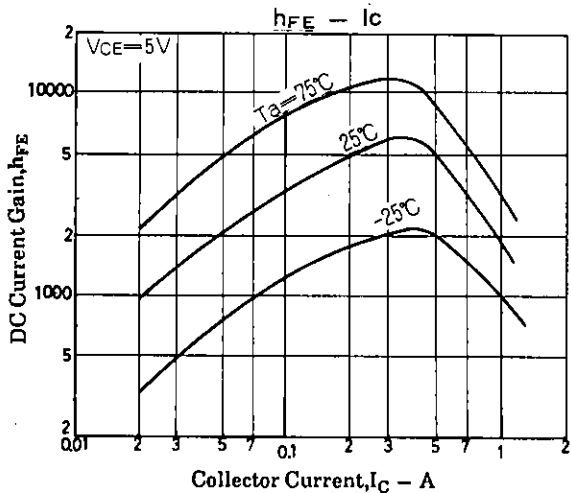
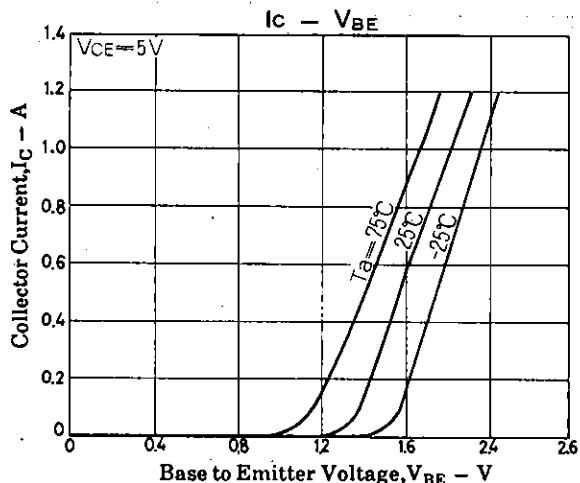
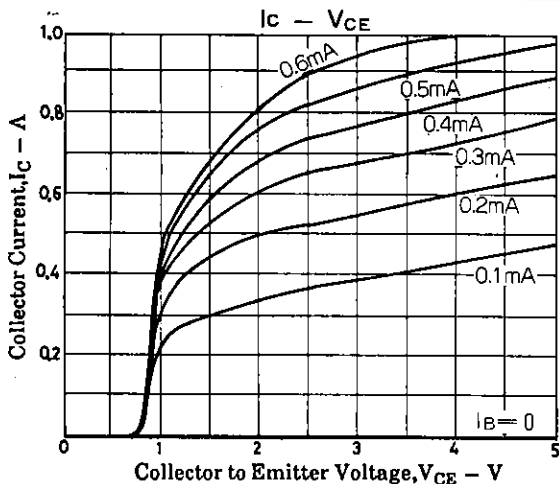
Package Dimensions 2064

(unit: mm)



E: Emitter
 C: Collector
 B: Base
 SANYO: NMP

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