

SANYO	No.2476A	2SC4169
		NPN Epitaxial Planar Silicon Transistor

Driver Applications

Applications

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

Features

- On-chip zener diode of $60 \pm 10V$ between collector and base
- Uniformity in collector to base voltage
- High DC current gain : $h_{FE} = 1000 \text{ min}$ ($V_{CE} = 5V, I_C = 500mA$)
- Wide ASO
- High inductive load handling capability : $Es/b = 15mJ$ (min)

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

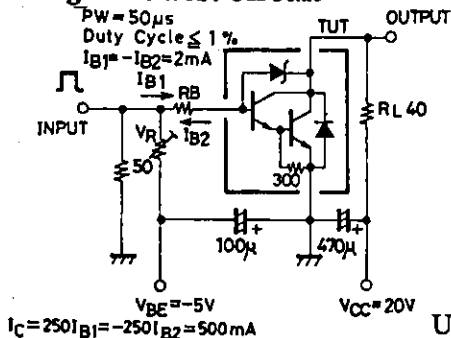
			unit
Collector to Base Voltage	V_{CBO}	※50	V
Collector to Emitter Voltage	V_{CEO}	※50	V
Emitter to Base Voltage	V_{EBO}	6	V
Collector Current	I_C	1.2	mA
Collector Current(Pulse)	I_{CP}	2.5	mA
Collector Dissipation	P_C	1	mW
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature	T_{stg}	-55 to +150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

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

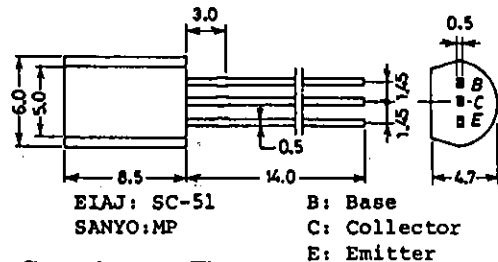
Electrical Characteristics at $T_a = 25^\circ C$

			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	4000		
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 Handling Capability	Es/b	$L = 100mH, R_{BE} = 100\Omega$	15			mJ
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}	Same as above.		2.2		μs
Fall Time	t_f	Same as above.		0.4		μs

Switching Time Test Circuit



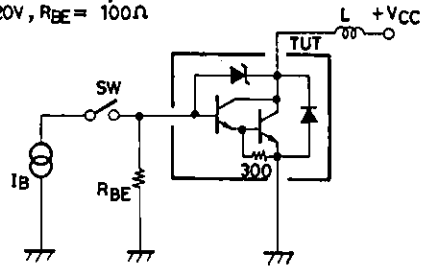
Package Dimensions 2006A (unit: mm)



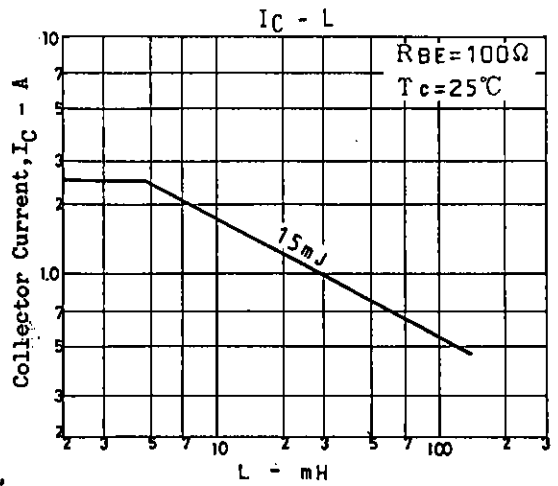
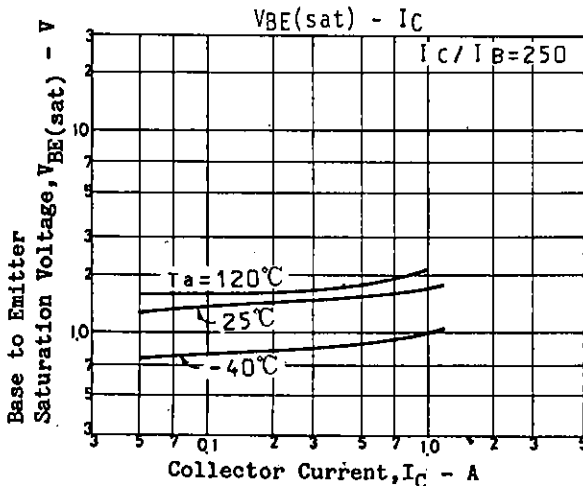
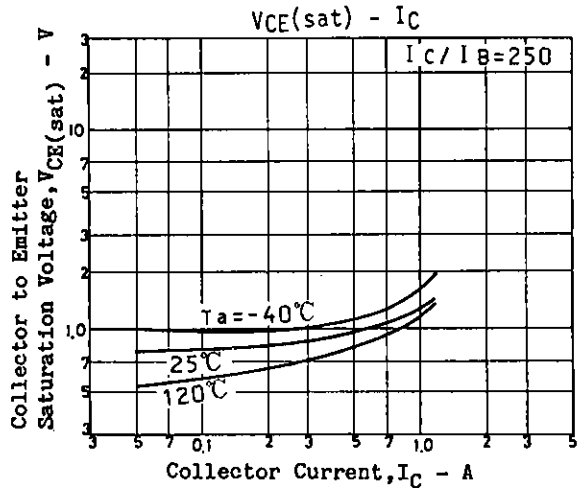
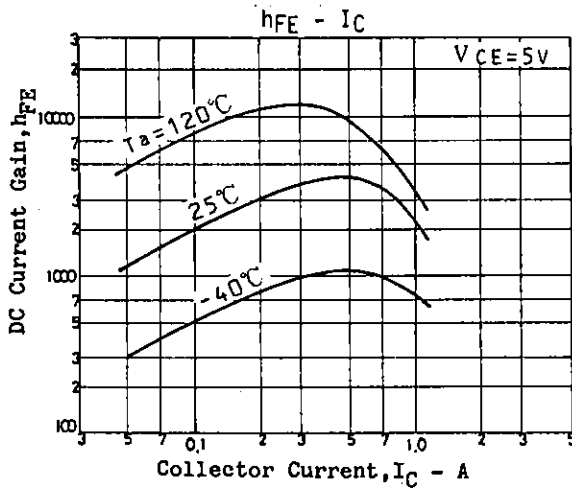
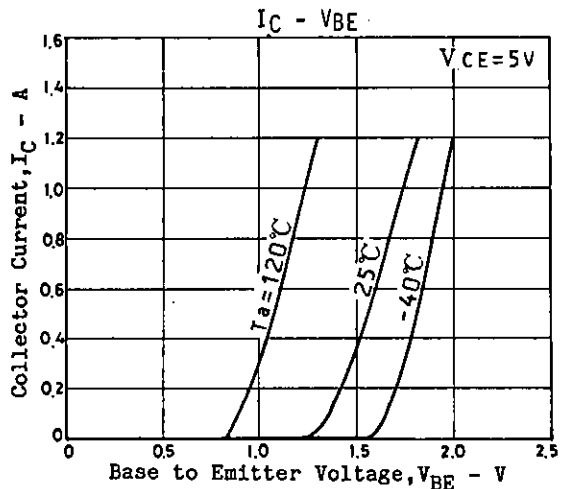
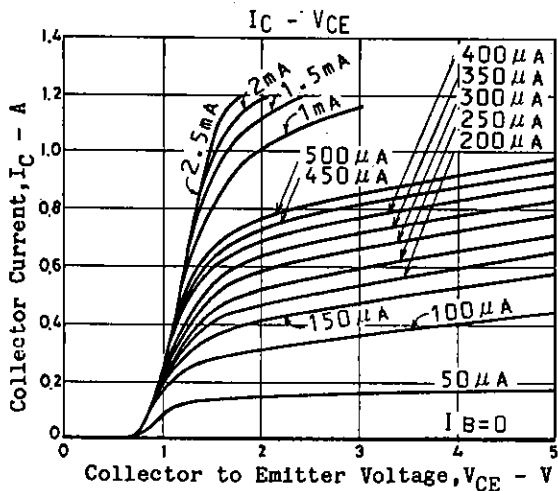
Unit(Resistance : Ω , Capacitance : F)

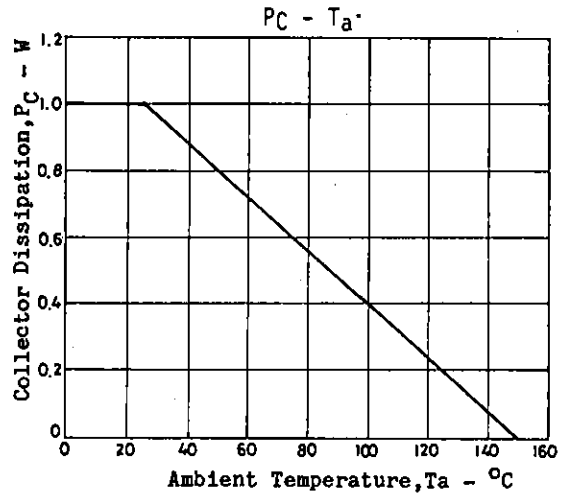
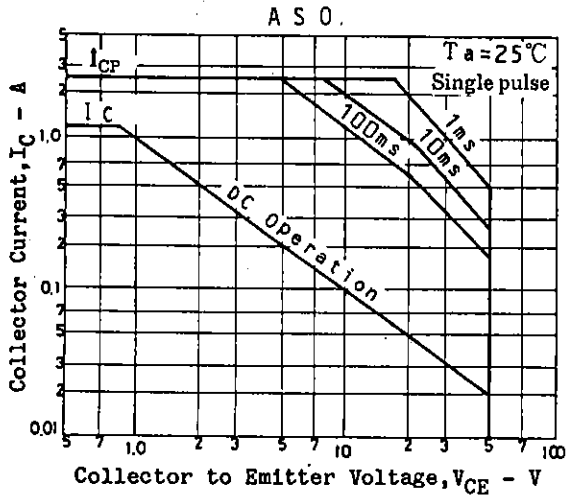
Es/b Test Circuit

$V_{CC} = 20V, R_{BE} = 100\Omega$



Unit(Resistance : Ω)





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