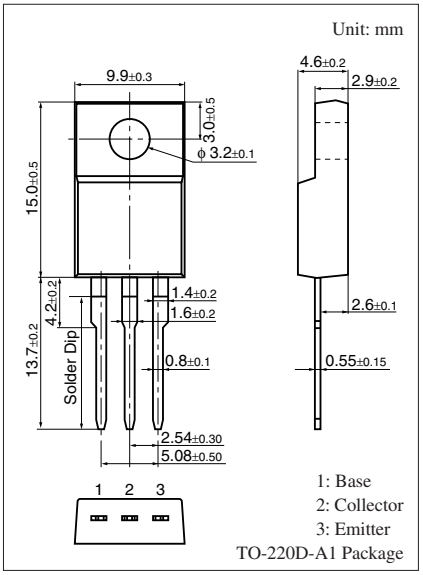
2SA2064

Silicon PNP epitaxial planar type

Power supply for audio & visual equipments
such as TVs and VCRs
Industrial equipments such as DC-DC converters



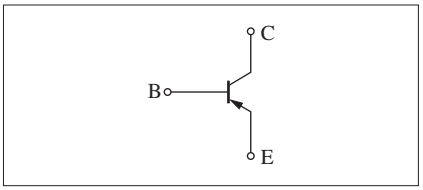
■ Features

- High speed switching (t_{stg}: storage time/t_f: fall time is short)
- Low collector-emitter saturation voltage $V_{CE(sat)}$
- Superior forward current transfer ratio h_{FE} linearity
- TO-220D built-in: Excellent package with withstand voltage 5 kV guaranteed

■ Absolute Maximum Ratings $T_C = 25°C$

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	−50	V
Collector-emitter voltage (Base open)	V_{CEO}	−50	V
Emitter-base voltage (Collector open)	V_{EBO}	−6	V
Collector current	I_C	−10	A
Peak collector current	I_{CP}	−20	A
Collector power dissipation	P_C	25	W
$T_a = 25°C$		2.0	
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

Internal Connection

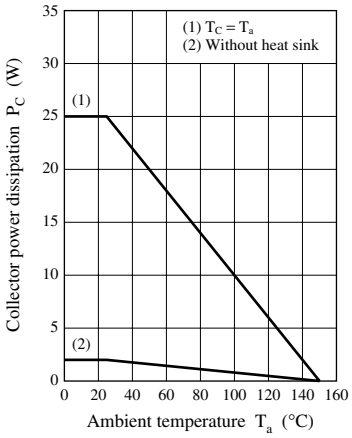


■ Electrical Characteristics $T_C = 25°C \pm 3°C$

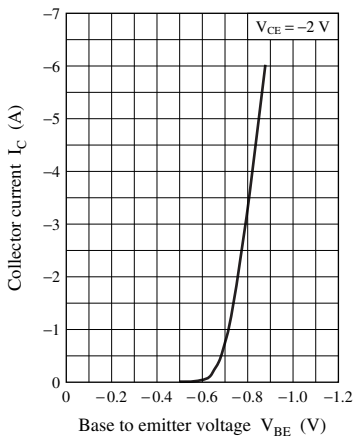
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = -10$ mA, $I_B = 0$	−50			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = -50$ V, $I_E = 0$			−100	μA
Collector-emitter cutoff current (Base open)	I_{CEO}	$V_{CE} = -50$ V, $I_B = 0$			−100	μA
Forward current transfer ratio	h_{FE1}	$V_{CE} = -2$ V, $I_C = -1$ A	200			—
	h_{FE2}	$V_{CE} = -2$ V, $I_C = -7$ A	100			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -5$ A, $I_B = -250$ mA			− 0.5	V
Turn-on time	t_{on}	$I_C = -4$ A, Resistance loaded			0.5	μs
Storage time	t_{stg}	$I_{B1} = -0.4$ A, $I_{B2} = 0.4$ A			1.0	μs
Fall time	t_f	$V_{CC} = -40$ V			0.15	μs

Note) Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

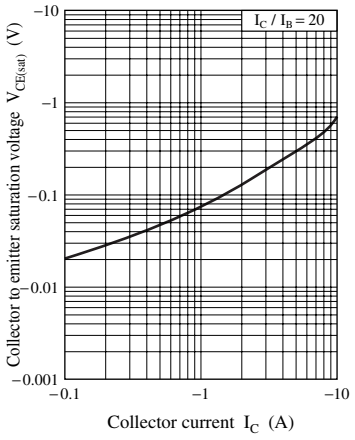
P_C — T_a



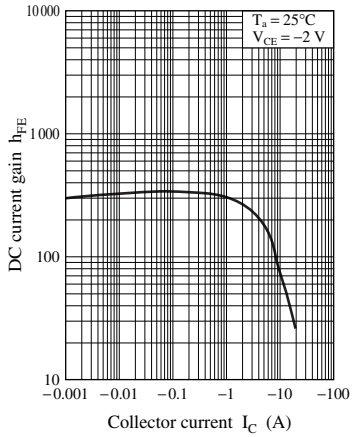
I_C — V_{BE}



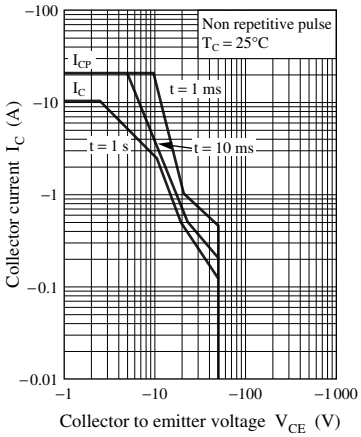
$V_{CE(sat)}$ — I_C



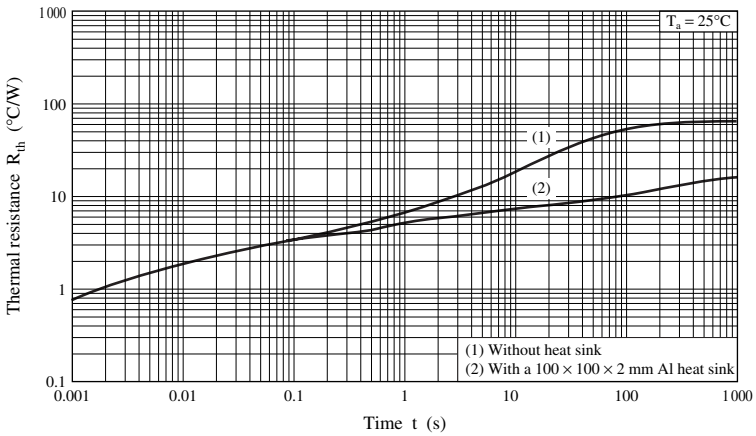
h_{FE} — I_C



Safe operation area



R_{th} — t



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