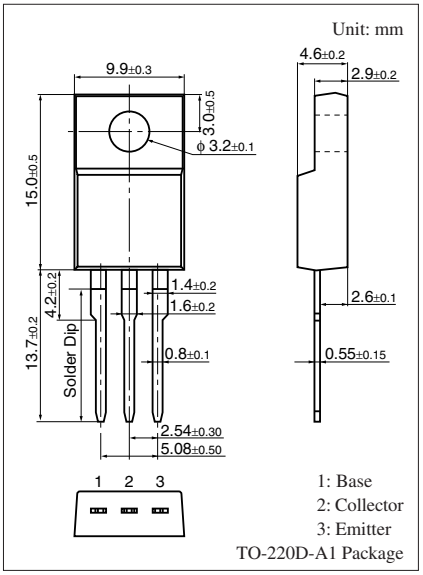
2SA2074

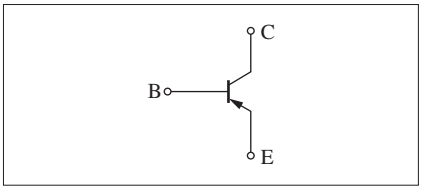
Silicon PNP epitaxial planar type

Power supply for Audio & Visual equipments
such as TVs and VCRs
Industrial equipments such as DC-DC converters



Marking Symbol: A2074

Internal Connection



■ 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 $T_C = 25°C$

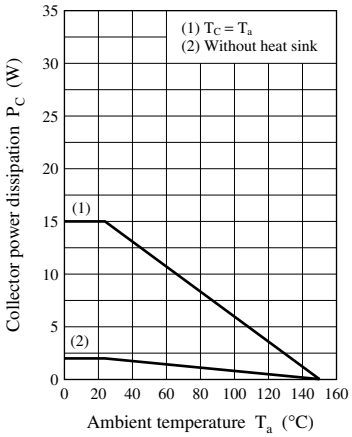
Parameter		Symbol	Rating	Unit
Collector-base voltage (Emitter open)		V_{CBO}	−80	V
Collector-emitter voltage (Base open)		V_{CEO}	−80	V
Emitter-base voltage (Collector open)		V_{EBO}	−6	V
Collector current		I_C	−3	A
Peak collector current		I_{CP}	−5	A
Collector power dissipation	$T_C = 25°C$	P_C	15	W
	$T_a = 25°C$		2	
Junction temperature		T_j	150	°C
Storage temperature		T_{stg}	−55 to +150	°C

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

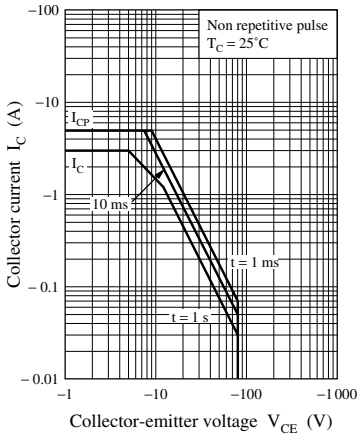
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = -10$ mA, $I_B = 0$	−80			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = -80$ V, $I_E = 0$			−100	μA
Collector-emitter cutoff current (Base open)	I_{CEO}	$V_{CE} = -80$ V, $I_B = 0$			−100	μA
Forward current transfer ratio	h_{FE1}	$V_{CE} = -4$ V, $I_C = -1$ A	80		250	—
	h_{FE2}	$V_{CE} = -4$ V, $I_C = -3$ A	30			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -3$ A, $I_B = -0.375$ A			−1.0	V
Transition frequency	f_T	$V_{CE} = -10$ V, $I_C = -0.1$ A, f = 10 MHz		100		MHz
Turn-on time	t_{on}	$I_C = -1$ A, Resistance loaded		0.2		μs
Storage time	t_{stg}	$I_{B1} = -0.1$ A, $I_{B2} = 0.1$ A		0.7		μs
Fall time	t_f	$V_{CC} = -50$ V		0.1		μs

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

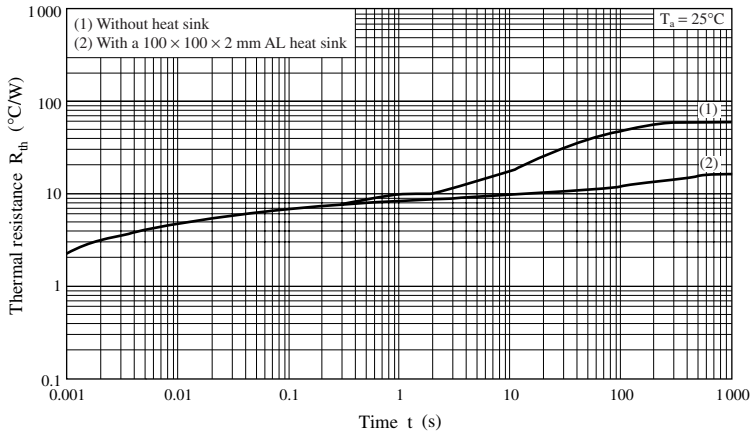
P_C — T_a



Safe operation area



R_{th} — t



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