# 2SD2064

### Silicon NPN triple diffusion planar type

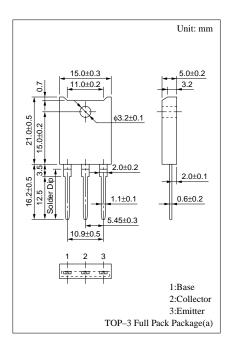
For high power amplification Complementary to 2SB1371

#### Features

- $\bullet$  Satisfactory foward current transfer ratio  $h_{FE}$  vs. collector current  $I_C$  characteristics
- Wide area of safe operation (ASO)
- High transition frequency f<sub>T</sub>
- Optimum for the output stage of a HiFi audio amplifier
- Full-pack package which can be installed to the heat sink with one screw

#### Absolute Maximum Ratings $(T_C=25^{\circ}C)$

Parameter	Symbol	Ratings	Unit	
Collector to base voltage	V <sub>CBO</sub>	120	V	
Collector to emitter voltage	e V <sub>CEO</sub>	120	V	
Emitter to base voltage	V <sub>EBO</sub>	5	V	
Peak collector current	$I_{CP}$	10	A	
Collector current	$I_C$	6	A	
Collector power T <sub>C</sub> =25°C		70	***	
dissipation Ta=25°C	P <sub>C</sub>	3	W	
Junction temperature	T <sub>j</sub>	150	°C	
Storage temperature	$T_{stg}$	-55 to +150	°C	



### Electrical Characteristics (T<sub>C</sub>=25°C)

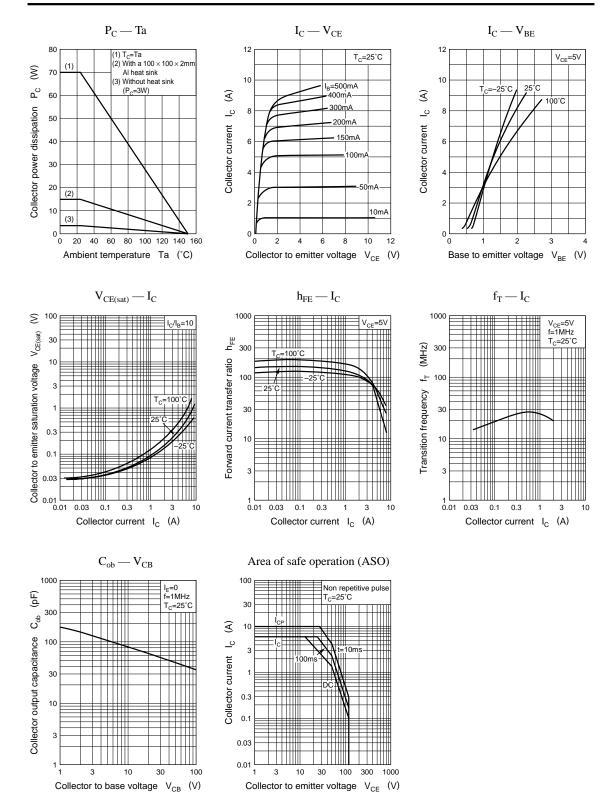
Parameter	Symbol	Conditions min ty		typ	max	Unit
Collector cutoff current	$I_{CBO}$	$V_{CB} = 120V, I_{E} = 0$			50	μΑ
Emitter cutoff current	$I_{EBO}$	$V_{EB} = 3V, I_C = 0$			50	μΑ
Forward current transfer ratio	h <sub>FE1</sub>	$V_{CE} = 5V, I_{C} = 20mA$	20			
	h <sub>FE2</sub> *	$V_{CE} = 5V, I_{C} = 1A$	60		200	
	h <sub>FE3</sub>	$V_{CE} = 5V$ , $I_C = 4A$	20			
Base to emitter voltage	V <sub>BE</sub>	$V_{CE} = 5V$ , $I_C = 4A$			1.8	V
Collector to emitter saturation voltage	V <sub>CE(sat)</sub>	$I_C = 4A, I_B = 0.4A$			2.0	V
Transition frequency	$f_T$	$V_{CE} = 5V, I_{C} = 0.5A, f = 1MHz$		20		MHz
Collector output capacitance	C <sub>ob</sub>	$V_{CB} = 10V, I_{E} = 0, f = 1MHz$		80		pF

#### \*h<sub>FE2</sub> Rank classification

Rank	Q	S	P
h <sub>FE2</sub>	60 to 120	80 to 160	100 to 200

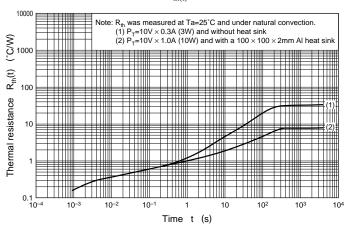
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