2SD2374, 2SD2374A

Silicon NPN triple diffusion planar type

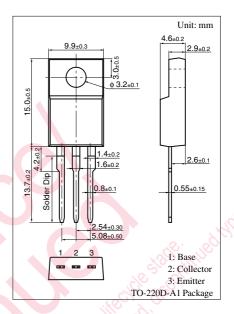
For power amplification
Complementary to 2SB1548 and 2SB1548A

■ Features

- ullet High forward current transfer ratio h_{FE} which has satisfactory linearity
- \bullet Low collector to emitter saturation voltage $V_{\text{CE(sat)}}$
- Full-pack package which can be installed to the heat sink with one

■ Absolute Maximum Ratings $T_C = 25$ °C

Paramet	er	Symbol	Rating	Unit	
Collector to base	2SD2374	V _{CBO}	60	V	
voltage	2SD2374A		80		
Collector to	2SD2374	V _{CEO}	60	V	
emitter voltage	2SD2374A		80		
Emitter to base vol	tage	V_{EBO}	6	v	
Peak collector curr	ent	I _{CP}	5	A	
Collector current		I_{C}	3	A	
Collector power	$T_C = 25^{\circ}C$	P _C	25	W	
dissipation	$T_a = 25^{\circ}C$		2		
Junction temperature		T _j	150	°C	
Storage temperatur	re	T_{stg}	-55 to +150	°C	



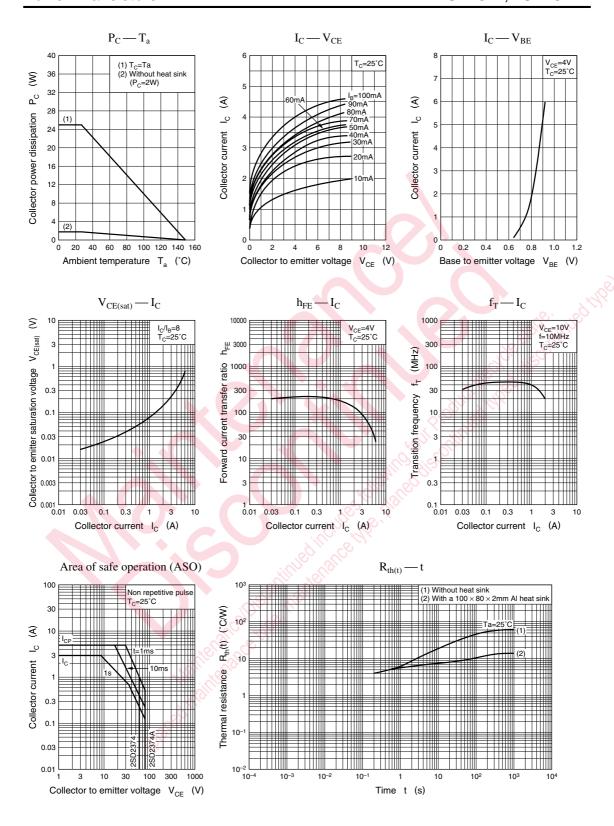
■ Electrical Characteristics $T_C = 25$ °C

Paramete		Symbol	Conditions	Min	Тур	Max	Unit
Collector cutoff	2SD2374	I _{CES}	$V_{CE} = 60 \text{ V}, V_{BE} = 0$			200	μΑ
current	2SD2374A		$V_{CE} = 80 \text{ V}, V_{BE} = 0$			200	
Emitter cutoff	2SD2374	I_{CEO}	$V_{CE} = 30 \text{ V}, I_{B} = 0$			300	μΑ
current	2SD2374A		$V_{CE} = 60 \text{ V}, I_{B} = 0$			300	
Emitter cutoff current		I _{EBO}	$V_{EB} = 6 \text{ V}, I_{C} = 0$			1	mA
Collector to emitter voltage		V _{CEO}	$I_C = 30 \text{ mA}, I_B = 0$	60			V
Forward current transfer ratio		h _{FE1} *	$V_{CE} = 4 \text{ V}, I_C = 1 \text{ A}$	70		250	
	The state of the s	h _{FE2}	$V_{CE} = 4 \text{ V}, I_{C} = 3 \text{ A}$	10			
Base to emitter voltage		V_{BE}	$V_{CE} = 4 \text{ V}, I_{C} = 3 \text{ A}$			1.8	V
Collector to emitter satu	ration voltage	V _{CE(sat)}	$I_C = 3 A, I_B = 0.375 A$			1.2	V
Transition frequency	10/3/	f_T	$V_{CE} = 10 \text{ V}, I_{C} = 0.5 \text{ A}, f = 10 \text{ MHz}$		30		MHz
Turn-on time	C	t _{on}	$I_C = 1 A$, $I_{B1} = 0.1 A$, $I_{B2} = -0.1 A$,		0.5		μs
Storage time		t _{stg}	$V_{CC} = 50 \text{ V}$		2.5		μs
Fall time		$t_{\rm f}$			0.4		μs

Note) *: Rank classification

Rank	Q	Р
h_{FE1}	70 to 150	120 to 250

360 Panasonic



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