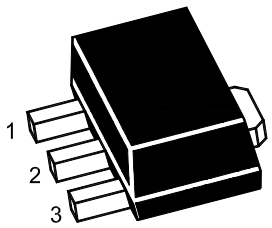
2SD874

NPN Transistor

Features

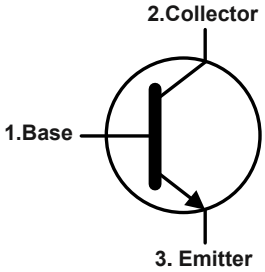
- For low frequency power amplifications

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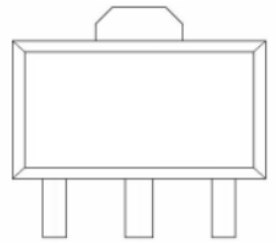


1.Base 2.Collector 3. Emitter

Equivalent Circuit



Marking Code :



Absolute Maximum Ratings

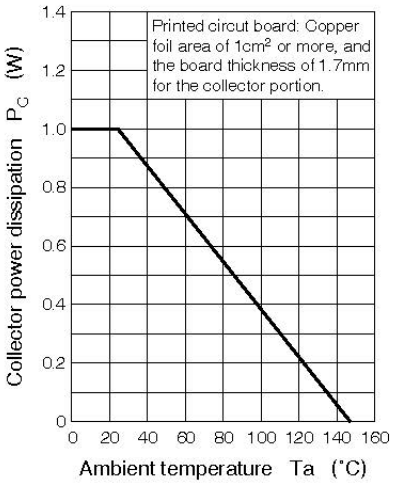
Ratings at 25℃ ambient temperature unless otherwise specified.

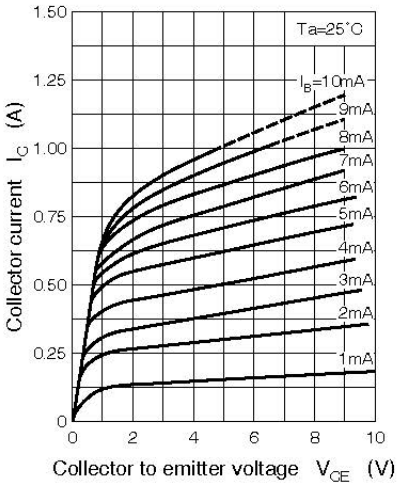
Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	60	V
Collector Emitter Voltage	V_{CEO}	50	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current	I_C	1	A
Peak Collector Current	I_{CM}	1.5	A
Maximum Power Dissipation	P_D	1	W
Junction Temperature	T_J	150	℃
Storage Temperature Range	T_{STG}	-55 to +150	℃

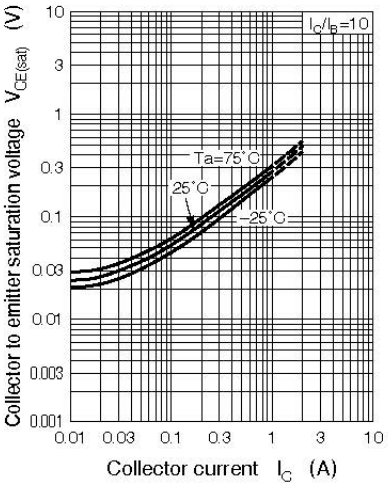
Electrical Characteristics (T_A=25℃)

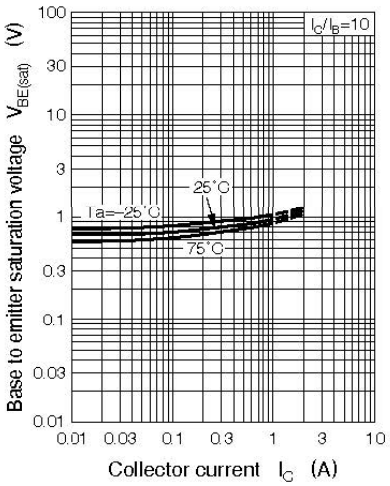
Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain					
at V_{CE} = 10 V, I_C = 500 mA Current Gain Group Q	H_{FE}	85	--	170	--
R		120	--	240	
S		170	--	340	
at V_{CE} = 5 V, I_C = 1 A		50	--	--	
Collector Base Cutoff Current at V_{CB} = 20V	I_{CBO}	--	--	100	nA
Emitter Base Cutoff Current at V_{EB} = 5 V	I_{EBO}	--	--	100	nA
Collector Base Breakdown Voltage at I_C = 10 μA	$V_{(BR)CBO}$	60	--	--	V
Collector Emitter Breakdown Voltage at I_C = 2 mA	$V_{(BR)CEO}$	50	--	--	V
Emitter Base Breakdown Voltage at I_E = 10 μA	$V_{(BR)EBO}$	5	--	--	V
Collector Emitter Saturation Voltage at I_C = 500 mA, I_B = 50 mA	$V_{CE(sat)}$	--	--	0.4	V
Base Emitter Saturation Voltage at I_C = 500 mA, I_B = 50 mA	$V_{BE(sat)}$	--	--	1.2	V
Transition Frequency at V_{CE} = 10 V, -I_E = 50 mA, f = 200 MHz	F_T	--	200	--	MHz
Output Capacitance at V_{CB} = 10 V, f = 1 MHz	C_{ob}	--	--	20	pF

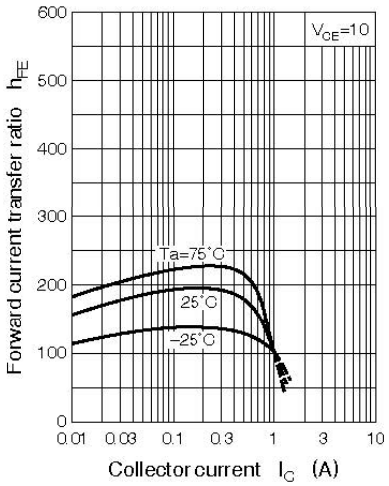
Typical Characteristic Curves

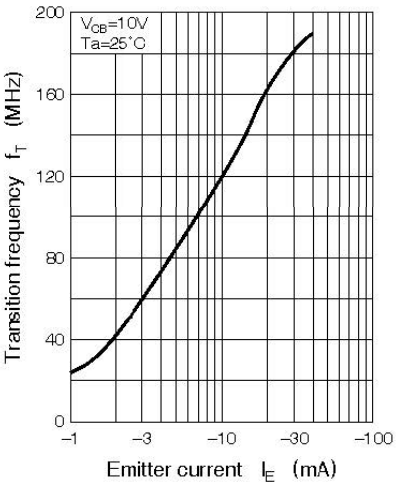


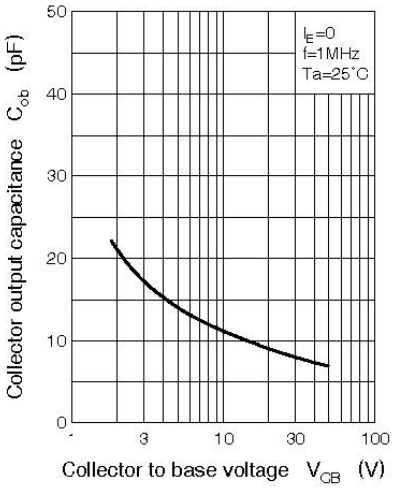








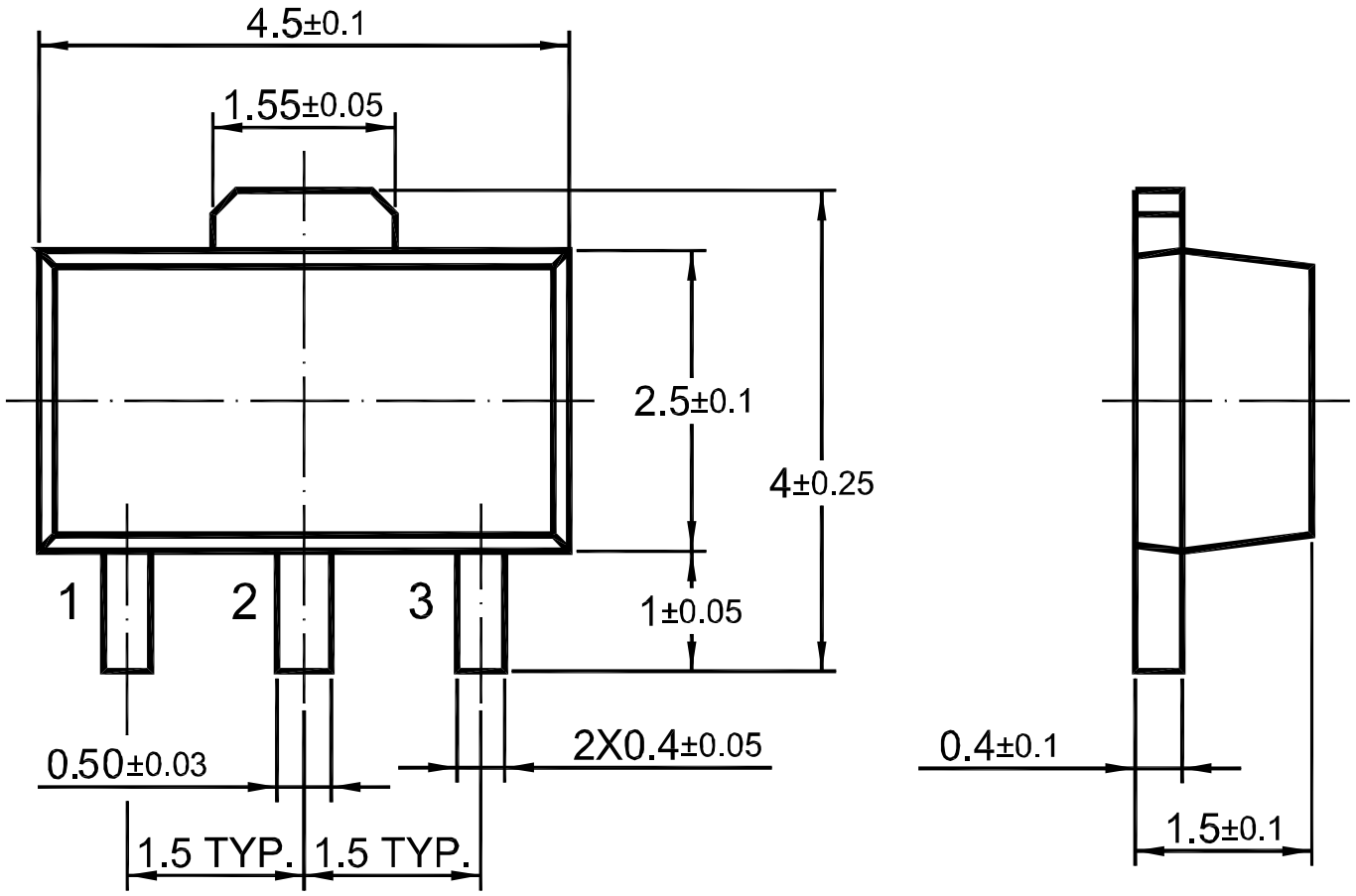




Package Outline

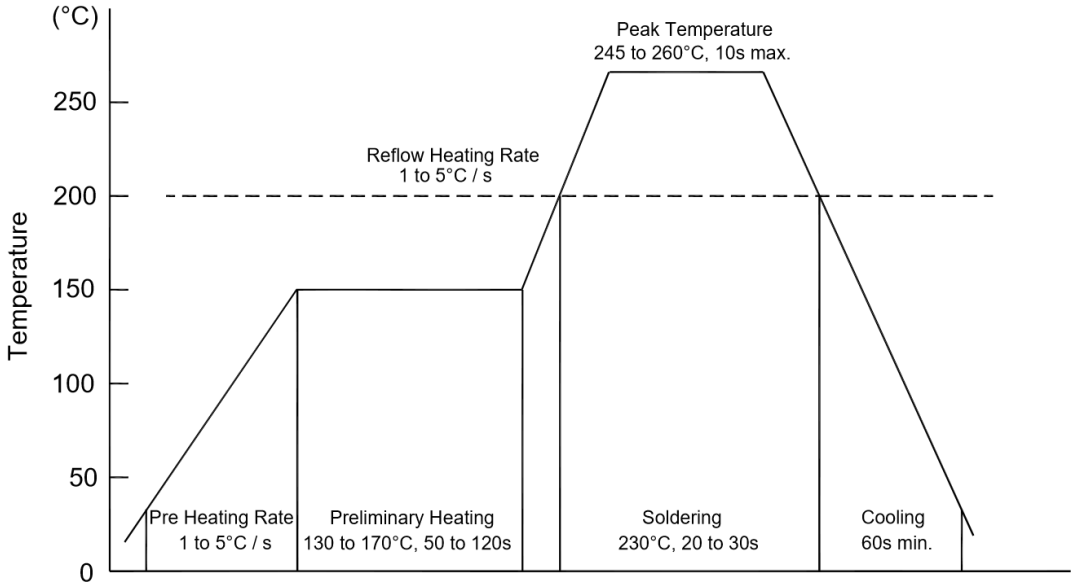
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Dimensions in mm



Conditions of Soldering and Storage

◆ Recommended condition of reflow soldering



Recommended peak temperature is over 245 ^{O}C. If peak temperature is below 245 ^{O}C, you may adjust the following parameters:

- Time length of peak temperature (longer)
- Time length of soldering (longer)
- Thickness of solder paste (thicker)

◆ Conditions of hand soldering

- Temperature: 370 ^{O}C
- Time: 3s max.
- Times: one time

◆ Storage conditions

- **Temperature**
  5 to 40 ^{O}C
- **Humidity**
  30 to 80% RH
- **Recommended period**
  One year after manufacturing