



# 2SD1666

## Low-Frequency Power Amplifier Applications

### Applications

- Low-frequency general-purpose power amplifier application.

### Features

- Wide ASO(Adoption of MBIT process).
- Mycaless package facilitating mounting.
- High reliability.

### Specifications

**Absolute Maximum Ratings** at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V <sub>CB0</sub>		60	V
Collector-to-Emitter Voltage	V <sub>CEO</sub>		60	V
Emitter-to-Base Voltage	V <sub>EBO</sub>		6	V
Collector Current	I <sub>C</sub>		3	A
Collector Current (Pulse)	I <sub>CP</sub>		8	A
Collector Dissipation	P <sub>C</sub>		2	W
		T <sub>c</sub> =25°C	25	W
Junction Temperature	T <sub>J</sub>		150	°C
Storage Temperature	T <sub>stg</sub>		-40 to +150	°C

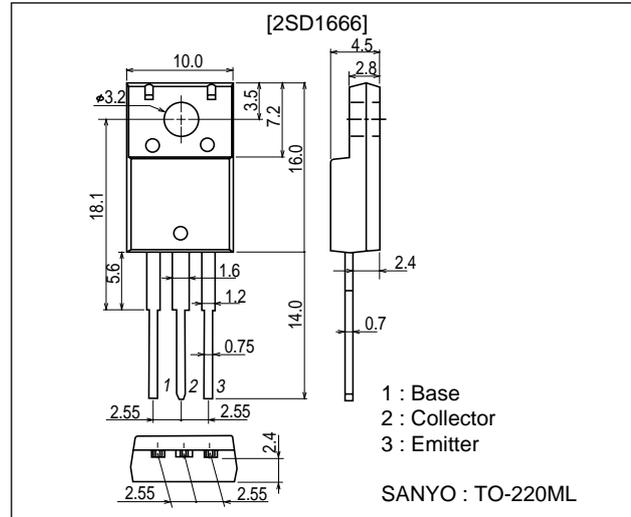
**Electrical Characteristics** at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I <sub>CB0</sub>	V <sub>CB</sub> =40V, I <sub>E</sub> =0			100	μA
Emitter Cutoff Current	I <sub>EBO</sub>	V <sub>EB</sub> =4V, I <sub>C</sub> =0			100	μA

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### Package Dimensions

unit : mm  
2041A



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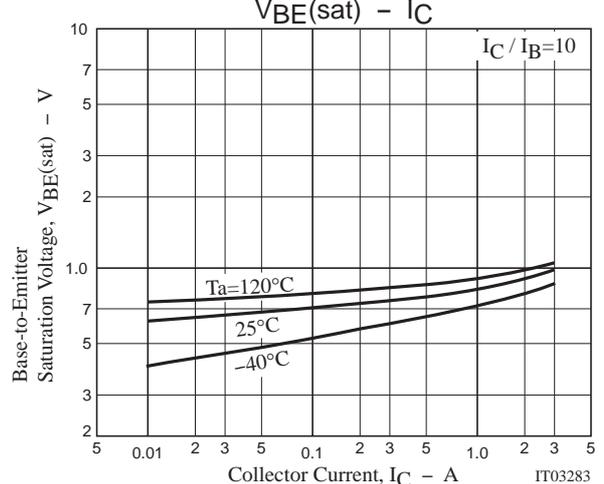
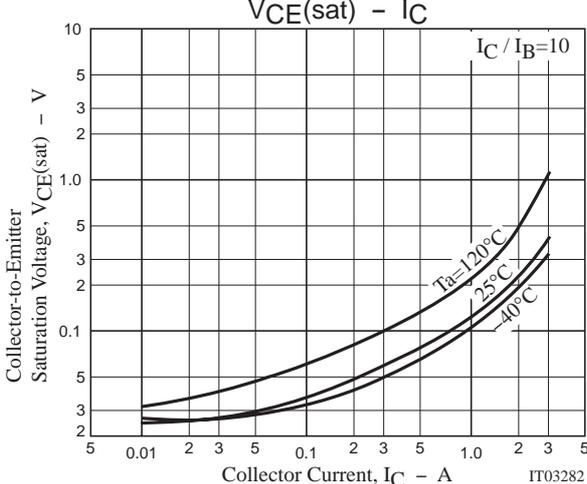
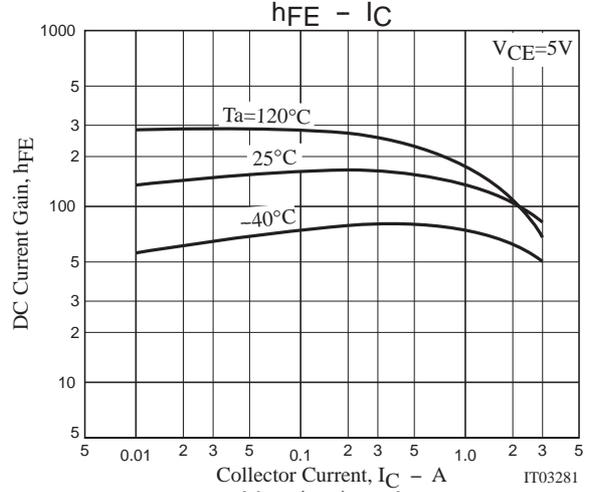
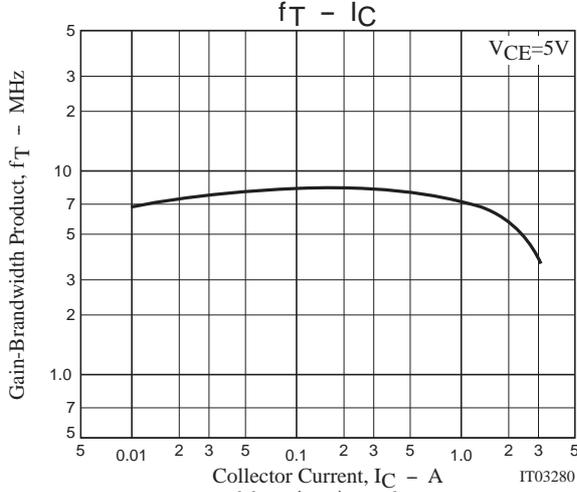
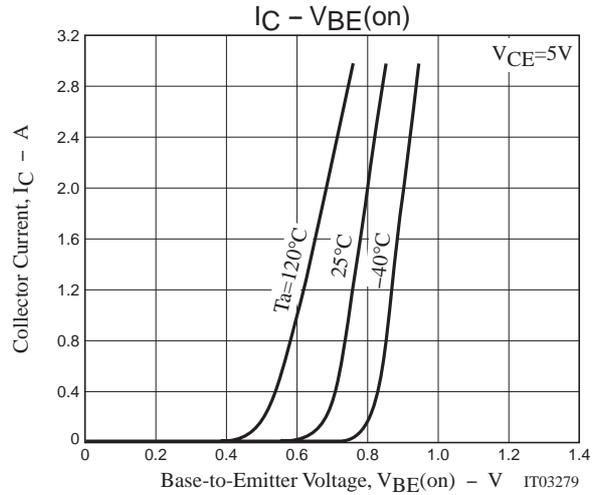
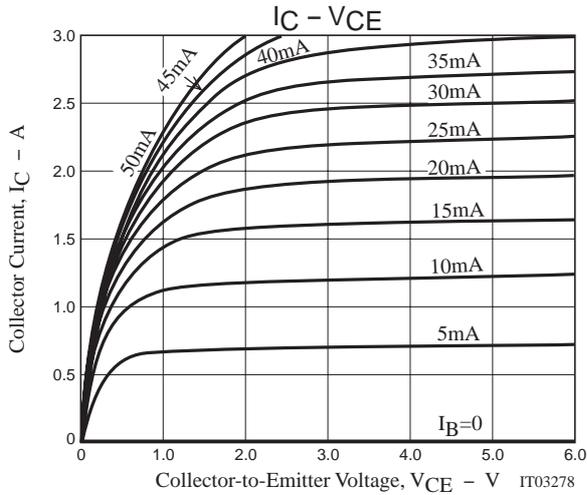
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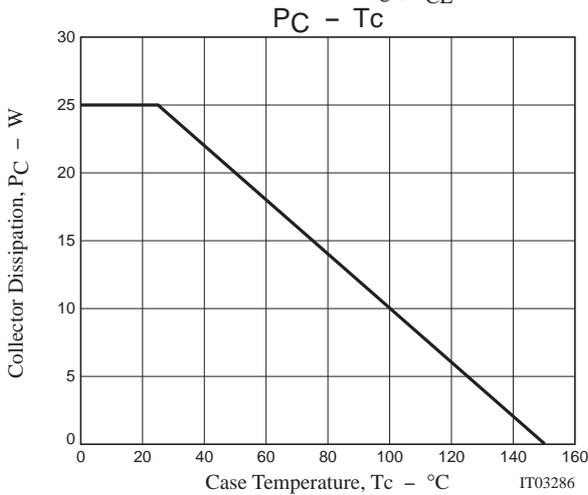
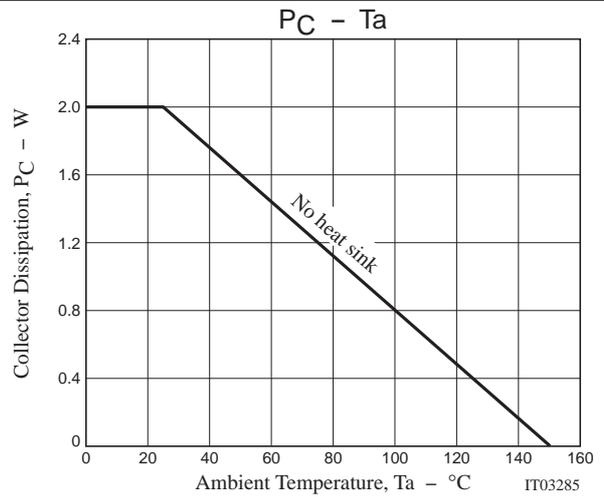
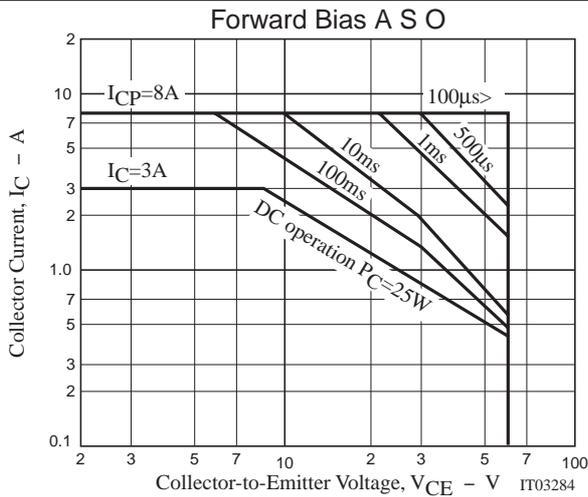
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
DC Current Gain	$h_{FE1}$	$V_{CE}=5V, I_C=0.5A$	70*		280*	
	$h_{FE2}$	$V_{CE}=5V, I_C=3A$	20			
Gain-Bandwidth Product	$f_T$	$V_{CE}=5V, I_C=0.5A$		8		MHz
Output Capacitance	$C_{ob}$	$V_{CB}=10V, f=1MHz$		60		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=2A, I_B=0.2A$		0.4	1	V
Base-to-Emitter Voltage	$V_{BE}$	$V_{CE}=5A, I_C=0.5A$		0.7	1	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=1mA, I_E=0$	60			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=5mA, R_{BE}=\infty$	60			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=1mA, I_C=0$	6			V

\* : The 2SD1666 are classified by 0.5A  $h_{FE}$  as follows :

Rank	Q	R	S
$h_{FE}$	70 to 140	100 to 200	140 to 280





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