



# 2SD2707/2SD2654/2SD2351/2SD2226K/2SD2227S

## Transistors

### ●Electrical characteristics (Ta = 25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV <sub>CB0</sub>	60	–	–	V	I <sub>c</sub> =10μA
Collector-emitter breakdown voltage	BV <sub>CEO</sub>	50	–	–	V	I <sub>c</sub> =1mA
Emitter-base breakdown voltage	BV <sub>EB0</sub>	12	–	–	V	I <sub>E</sub> =10μA
Collector cutoff current	I <sub>cBO</sub>	–	–	0.3	μA	V <sub>CB</sub> =50V
Emitter cutoff current	I <sub>EBO</sub>	–	–	0.3	μA	V <sub>EB</sub> =12V
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	–	–	0.3	V	I <sub>c</sub> /I <sub>B</sub> =50mA/5mA
DC current transfer ratio	h <sub>FE</sub>	820	–	2700	–	V <sub>CE</sub> /I <sub>c</sub> =5V/1mA
Transition frequency	f <sub>T</sub>	–	250	–	MHz	V <sub>CE</sub> =5V, I <sub>E</sub> =–10mA, f=100MHz
Output capacitance	C <sub>ob</sub>	–	3.5	–	pF	V <sub>CB</sub> =5V, I <sub>E</sub> =0A, f=1MHz

\* Measured using pulse current.

### ●Electrical characteristics curves

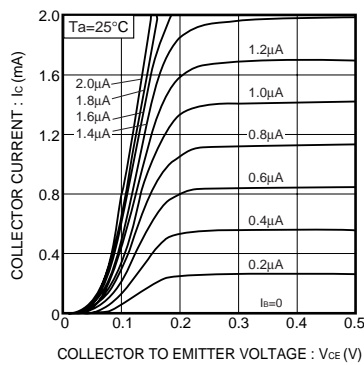


Fig.1 Grounded emitter output characteristics ( I )

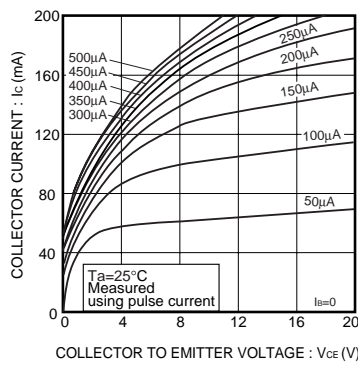


Fig.2 Grounded emitter output characteristics ( II )

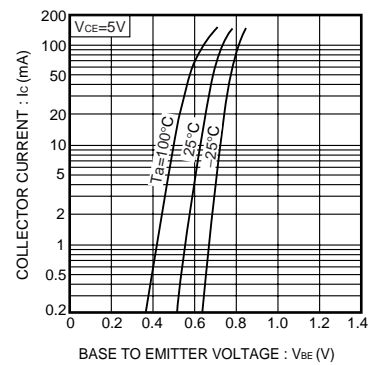


Fig.3 Grounded emitter propagation characteristics

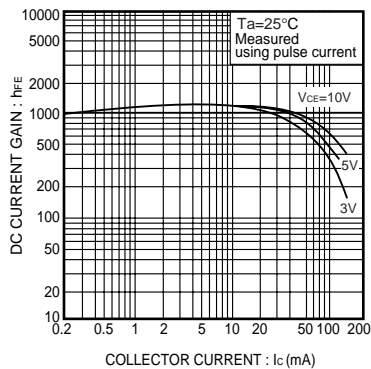


Fig.4 DC current gain vs. collector current ( I )

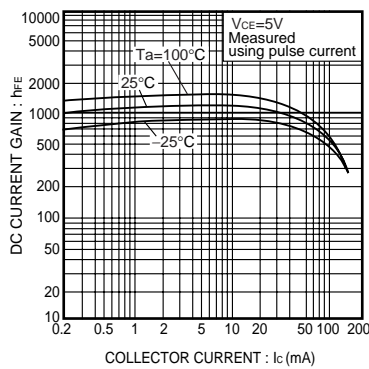


Fig.5 DC current gain vs. collector current ( II )

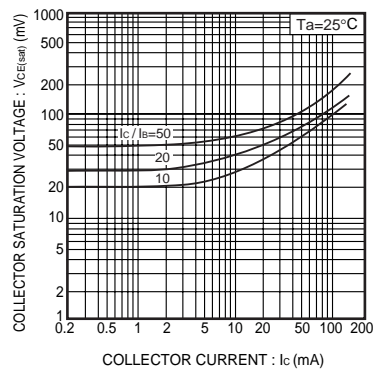


Fig.6 Collector-emitter saturation voltage vs. collector current ( I )

# 2SD2707/2SD2654/2SD2351/2SD2226K/2SD2227S

## Transistors

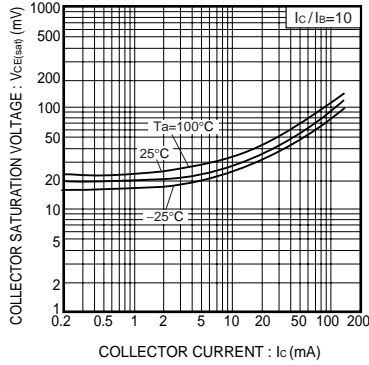


Fig.7 Collector-emitter saturation voltage vs. collector current ( II )

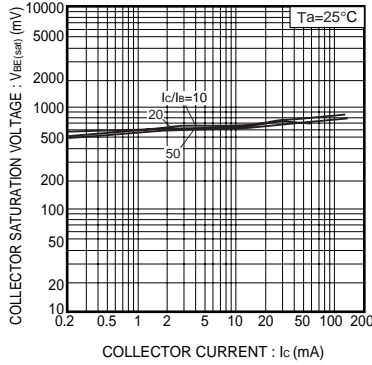


Fig.8 Base-emitter saturation voltage vs. collector current ( I )

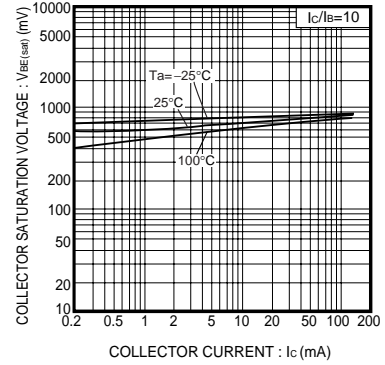


Fig.9 Base-emitter saturation voltage vs. collector current ( II )

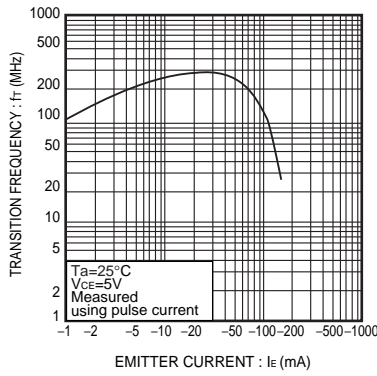


Fig.10 Gain bandwidth product vs. emitter current

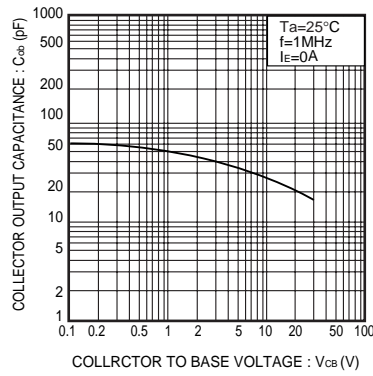


Fig.11 Collector output capacitance vs. collector-base voltage

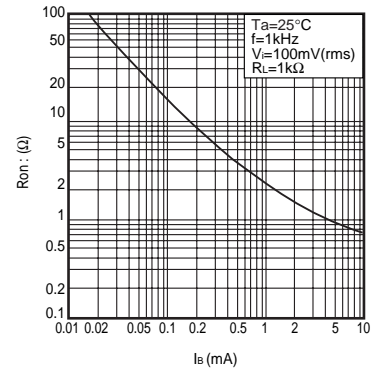


Fig.12 Output on resistance vs. base current

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