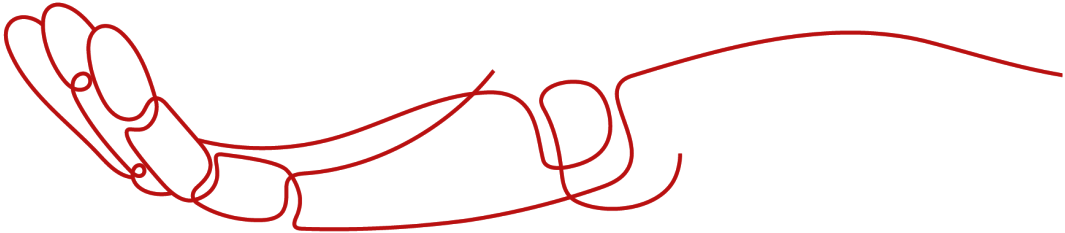




PRODUCT DATA SHEET



To learn more about JGSEMI, please visit our website at



Datasheet



Resources



Samples

Please note: Please check the JINGAO Semiconductor website to verify the updated device numbers. The most current and up-to-date ordering information can be found at www.jg-semi.cn. Please email any questions regarding the system integration to JINGAO_questions@jgsemi.com.

Features

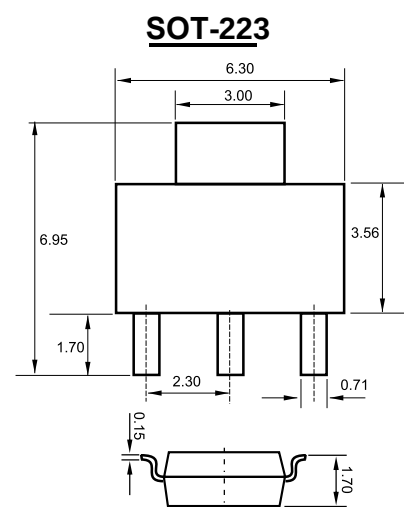
- ✧ Silicon Power Darlington Transistors
- ✧ Low speed switching and amplifier applications



1. BASE
2. COLLECTOR
3. EMITTER

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-100	V
V_{CEO}	Collector-Emitter Voltage	-100	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-5	A
P_C	Collector Power Dissipation	1	W
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-65-150	$^{\circ}\text{C}$



Dimensions in inches and (millimeters)

ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-1\text{mA}, I_E=0$	-100			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-30\text{mA}, I_B=0$	-100			V
Collector cut-off current	I_{CBO}	$V_{CB}=-100\text{V}, I_E=0$			-200	μA
Base cut-off current	I_{CEO}	$V_{CE}=-50\text{V}, I_B=0$			-500	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-5\text{V}, I_C=0$			-2	mA
DC current gain	$h_{FE(1)}$	$V_{CE}=-3\text{V}, I_C=-0.5\text{A}$	1000			
	$h_{FE(2)}$	$V_{CE}=-3\text{V}, I_C=-3\text{A}$	1000			
Collector-emitter saturation voltage	$V_{CE(sat)1}$	$I_C=-3\text{A}, I_B=-12\text{mA}$			-2	V
	$V_{CE(sat)2}$	$I_C=-5\text{A}, I_B=-20\text{mA}$			-4	V
Base-emitter voltage	$V_{BE(on)}$	$V_{CE}=-3\text{V}, I_C=-3\text{A}$			-2.5	V
Transition frequency	f_T	$V_{CE}=-4\text{V}, I_C=-3\text{A}, f=1\text{MHz}$	4			MHz
Collector output capacitance	C_{ob}	$V_{CB}=-10\text{V}, I_E=0, f=1.0\text{MHz}$			200	pF

Typical Characteristics

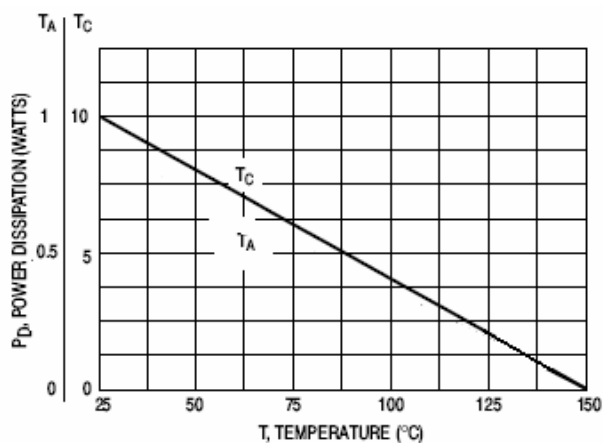
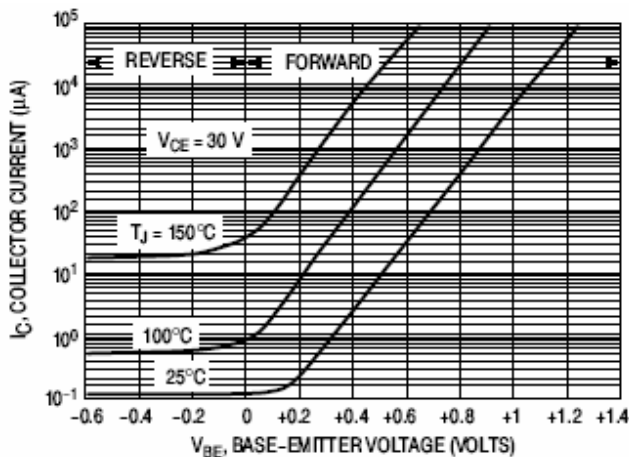
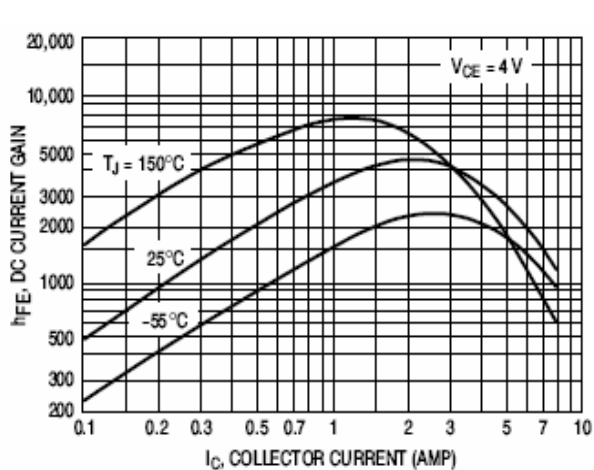
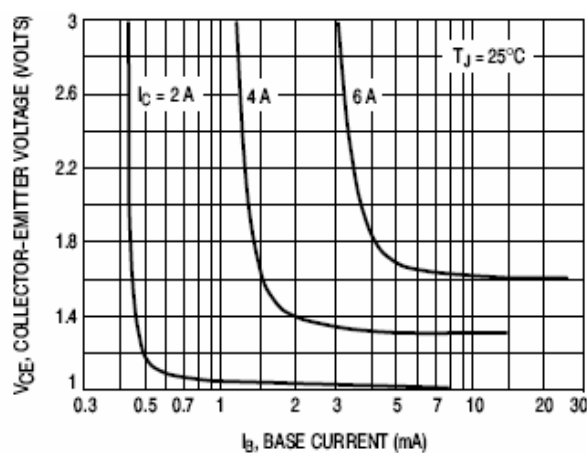


Figure 1. Power Derating



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