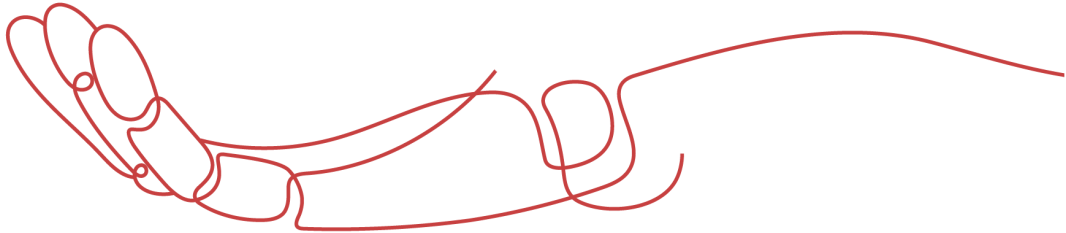




PRODUCT DATA SHEET



To learn more about JGSEMI, please visit our website at



Datasheet



Resources



Samples

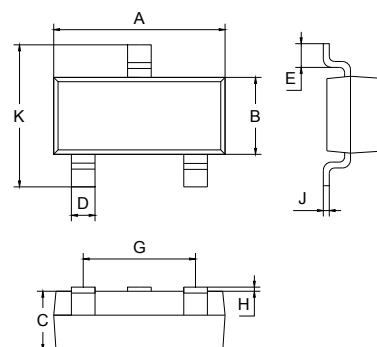
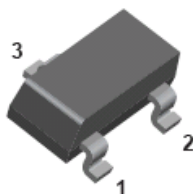
Please note: Please check the JINGAO Semiconductor website to verify the updated device numbers. The most current and up-to-date ordering information can be found at www.jg-semi.cn. Please email any questions regarding the system integration to JINGAO_questions@jgsemi.com.

FEATURES

- High saturation voltage.
- Excellent H_{FE} Linearity.

APPLICATIONS

- Switching application.



MAXIMUM RATING @ $T_a=25^{\circ}\text{C}$ unless otherwise specified

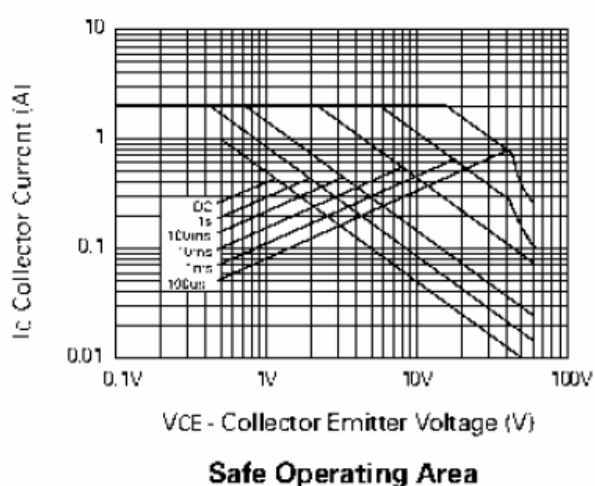
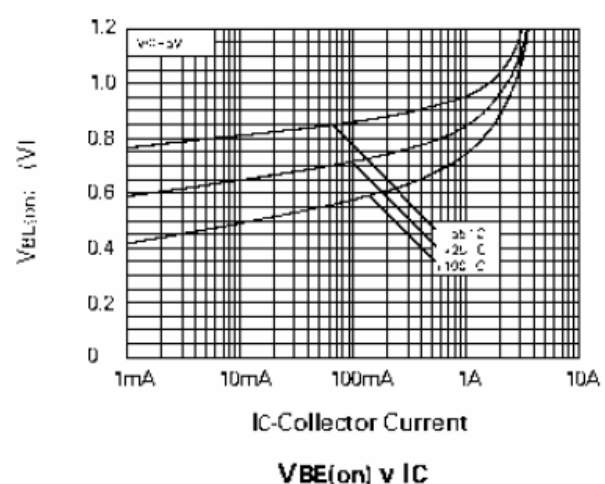
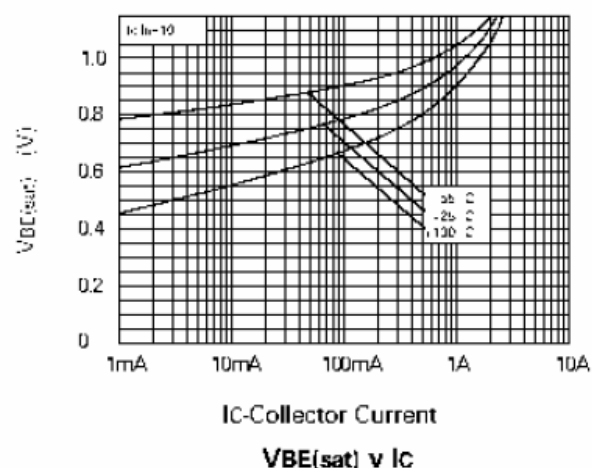
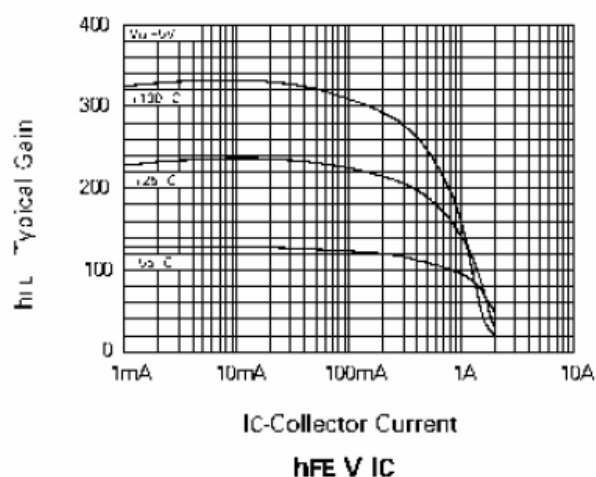
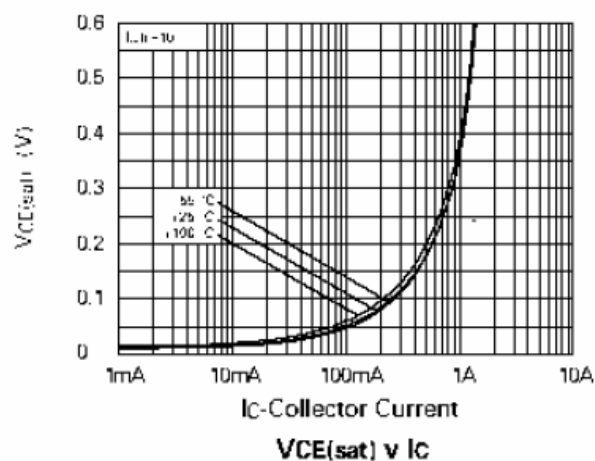
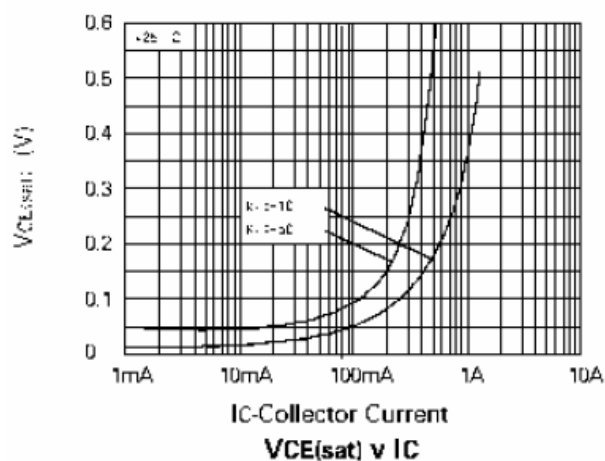
Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-80	V
V_{CEO}	Collector-Emitter Voltage	-60	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-1000	mA
P_C	Collector Dissipation	500	mW
T_j, T_{stg}	Junction and Storage Temperature	-55 to +150	$^{\circ}\text{C}$

SOT-23		
Dim	Min	Max
A	2.70	3.10
B	1.10	1.50
C	1.0 Typical	
D	0.4 Typical	
E	0.35	0.48
G	1.80	2.00
H	0.02	0.1
J	0.1 Typical	
K	2.20	2.60
All Dimensions in mm		

ELECTRICAL CHARACTERISTICS @ $T_a=25^{\circ}\text{C}$ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu\text{A}, I_E=0$	-80			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-10\text{mA}, I_B=0$	-60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-100\mu\text{A}, I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-60\text{V}, I_E=0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-4\text{V}, I_C=0$			-0.1	μA
DC current gain	h_{FE}	$V_{CE}=-5\text{V}, I_C=-1\text{mA}$	100		300	
		$V_{CE}=-5\text{V}, I_C=-500\text{mA}$	100			
		$V_{CE}=-5\text{V}, I_C=-1\text{A}$	80			
		$V_{CE}=-5\text{V}, I_C=-2\text{A}$	15			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-500\text{mA}, I_B=-50\text{mA}$ $I_C=-1\text{A}, I_B=-100\text{mA}$			-0.3 -0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-1\text{A}, I_B=-100\text{mA}$			-1.2	V
Base-emitter voltage	V_{BE}	$V_{CE}=-5\text{V}, I_C=-1\text{A}$			-1	V
Transition frequency	f_T	$V_{CE}=-10\text{V}, I_C=-50\text{mA}$ $f=100\text{MHz}$	150			MHz
Collector output capacitance	C_{ob}	$V_{CB}=-10\text{V}, I_E=0, f=1\text{MHz}$			10	pF

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified



Device	Package	Shipping
FMMT591	SOT-23	3000/Tape&Reel

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