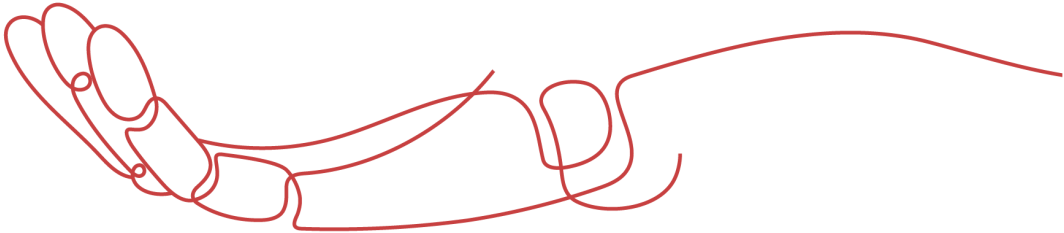




PRODUCT DATA SHEET



To learn more about JGSEMI, please visit our website at



Datasheet



Resources

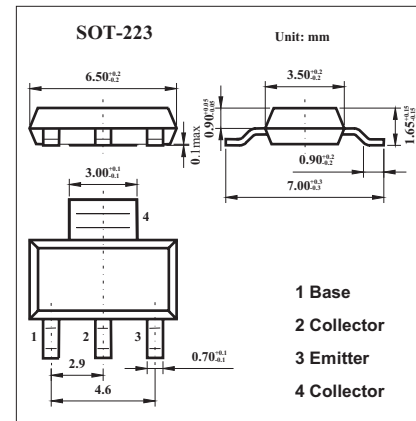


Samples

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

- Low saturation voltage
- Excellent h_{FE} specified up to 2A



■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V_{CB0}	-180	V
Collector-Emitter Voltage	V_{CE0}	-150	V
Emitter-Base Voltage	V_{EB0}	-5	V
Peak Pulse Current	I_{CM}	-6	A
Continuous Collector Current	I_C	-2	A
Power Dissipation at $T_{amb}=25^\circ\text{C}$	P_{tot}	2	W
Operating and Storage Temperature Range	$T_j: T_{stg}$	-55 to +150	$^\circ\text{C}$

■ Electrical Characteristics Ta = 25°C unless otherwise stated

Parameter	Symbol	Test conditions	Min	Typ.	Max	Unit
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -100\mu A$	-180			V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -10mA^*$	-150			V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -100\mu A$	-5			V
Collector Cut-Off Current	I_{CBO}	$V_{CB} = -150V$			-0.1	μA
		$V_{CB} = -150V, T_{amb} = 100^\circ C$			-10	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB} = -4V$			-0.1	μA
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -1A, I_B = -100mA^*$		-0.17	-0.3	V
		$I_C = -2A, I_B = -200mA^*$		-0.30	-0.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -1A, I_B = -100mA^*$		-0.9	-1.25	V
Base-Emitter Turn-On Voltage	$V_{BE(on)}$	$I_C = -1A, V_{CE} = -2V^*$		-0.8	-1.0	V
Static Forward Current Transfer Ratio	h_{FE}	$I_C = -50mA, V_{CE} = -2V^*$	70	200		
		$I_C = -500mA, V_{CE} = -2V^*$	100	200	300	
		$I_C = -1A, V_{CE} = -2V^*$	55	170		
		$I_C = -2A, V_{CE} = -2V^*$	25	55		
Transition Frequency	f_T	$I_C = -100mA, V_{CE} = -5V, f = 100MHz$	100	140		MHz
Output Capacitance	C_{obo}	$V_{CB} = -10V, f = 1MHz$			30	pF
Switching Times	t_{on}	$I_C = -500mA, V_{CC} = -10V, I_{B1} = I_{B2} = -50mA$		40		ns
	t_{off}			600		ns

* Measured under pulsed conditions. Pulse Width=300 μs . Duty cycle $\leq 2\%$

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