



PRODUCT DATA SHEET



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Datasheet



Resources

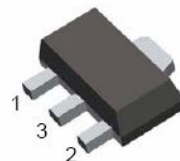
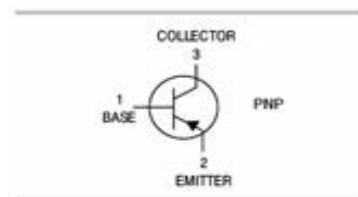


Samples

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

- $P_{CM} = 0.5W$ ($T_A = 25^{\circ}C$)
- High voltage
- Complementary: A42



APPLICATIONS

- Designed for high voltage driver application

SOT-89

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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-300	V
V_{CEO}	Collector-Emitter Voltage	-300	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-0.5	A
P_C	Collector Dissipation	500	mW
T_j, T_{stg}	Junction and Storage Temperature	-55 to +150	$^{\circ}C$

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu A, I_E=0$	-300			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-1.0mA, I_B=0$	-300			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-100\mu A, I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-200V, I_B=0$			-0.25	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-3V, I_C=0$			-0.1	μA
DC current gain	h_{FE}	$V_{CE}=-10V, I_C=-1mA$	60	300		
		$V_{CE}=-10V, I_C=-10mA$	100			
		$V_{CE}=-10V, I_C=-30mA$	60			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-20mA, I_B=-2mA$			-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-20mA, I_B=-2mA$			-0.9	V
Transition frequency	f_T	$V_{CE}=-20V, I_C=-10mA$ $f=100MHz$		50		MHz
Collector output capacitance	C_{ob}	$V_{CB}=-20V, I_E=0, f=1MHz$		6		pF

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

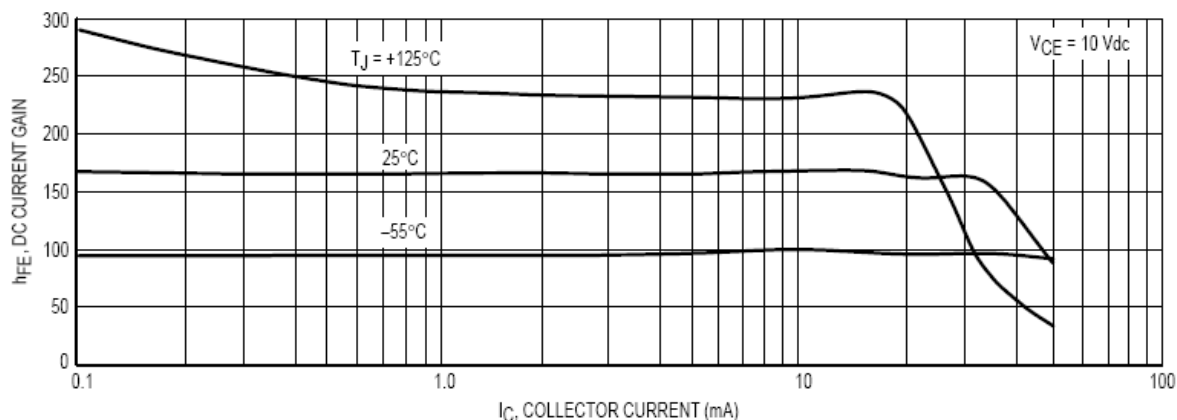


Figure 1. DC Current Gain

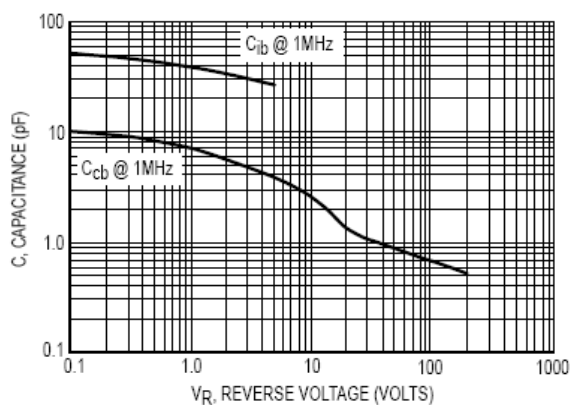


Figure 2. Capacitance

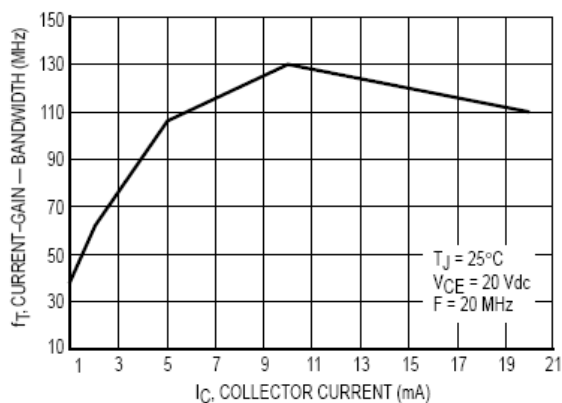


Figure 3. Current-Gain — Bandwidth

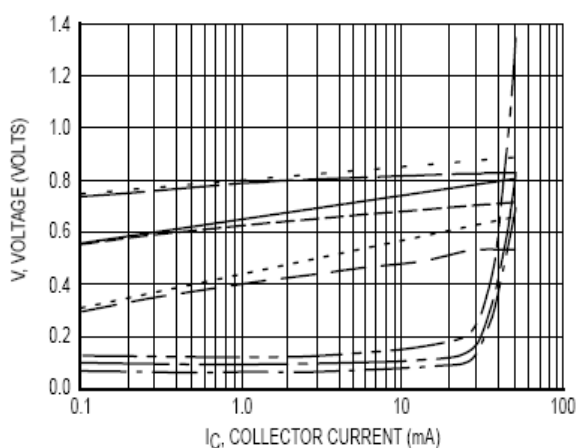


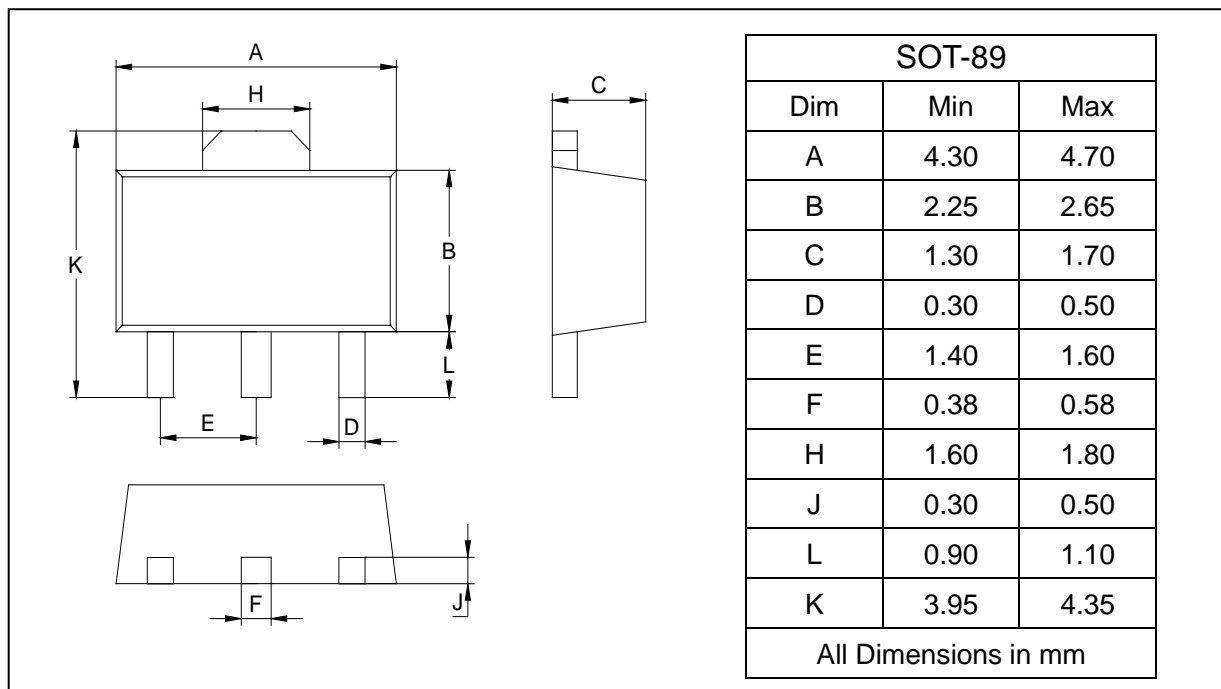
Figure 4. "ON" Voltages

- $V_{CE(sat)}$ @ 25°C , $I_C/I_B = 10$
- $V_{CE(sat)}$ @ 125°C , $I_C/I_B = 10$
- $V_{CE(sat)}$ @ -55°C , $I_C/I_B = 10$
- $V_{BE(sat)}$ @ 25°C , $I_C/I_B = 10$
- $V_{BE(sat)}$ @ 125°C , $I_C/I_B = 10$
- $V_{BE(sat)}$ @ -55°C , $I_C/I_B = 10$
- $V_{BE(on)}$ @ 25°C , $V_{CE} = 10\text{ V}$
- $V_{BE(on)}$ @ 125°C , $V_{CE} = 10\text{ V}$
- $V_{BE(on)}$ @ -55°C , $V_{CE} = 10\text{ V}$

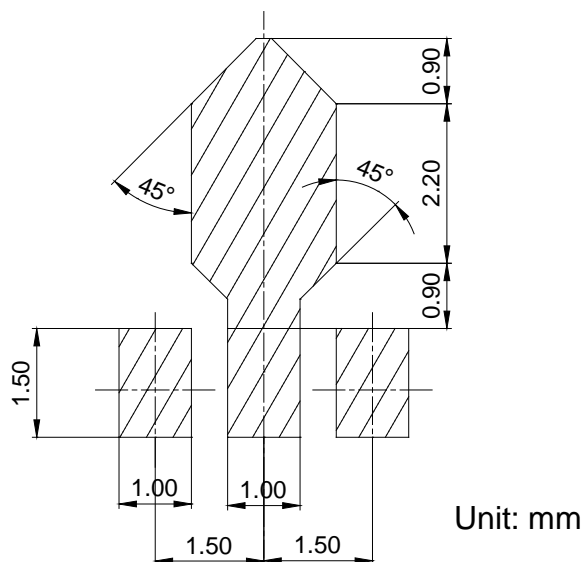
PACKAGE OUTLINE

Plastic surface mounted package

SOT-89



SOLDERING FOOTPRINT



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