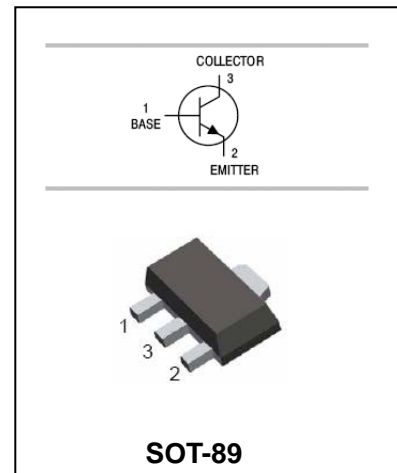


# LOW VOLTAGE HIGH CURRENT TRANSISTOR 2SD965A

## FEATURES

- Collector current up to 5A
- Collector-Emitter voltage up to 30V

HF



## APPLICATIONS

- Audio amplifier
- Flash unit of camera
- Switching circuit

## ORDERING INFORMATION

Type No.	Marking	Package Code
2SD965A	D965A	SOT-89

## MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Unit
$V_{CBO}$	Collector-Base Voltage	40	V
$V_{CEO}$	Collector-Emitter Voltage	30	V
$V_{EBO}$	Emitter-Base Voltage	7	V
$I_C$	Collector Current	5	A
$P_C$	Collector power dissipation	500	mW
$T_J$	Junction Temperature	150	°C
$T_{STG}$	Storage Temperature	-65 to +150	°C

# LOW VOLTAGE HIGH CURRENT TRANSISTOR

# 2SD965A

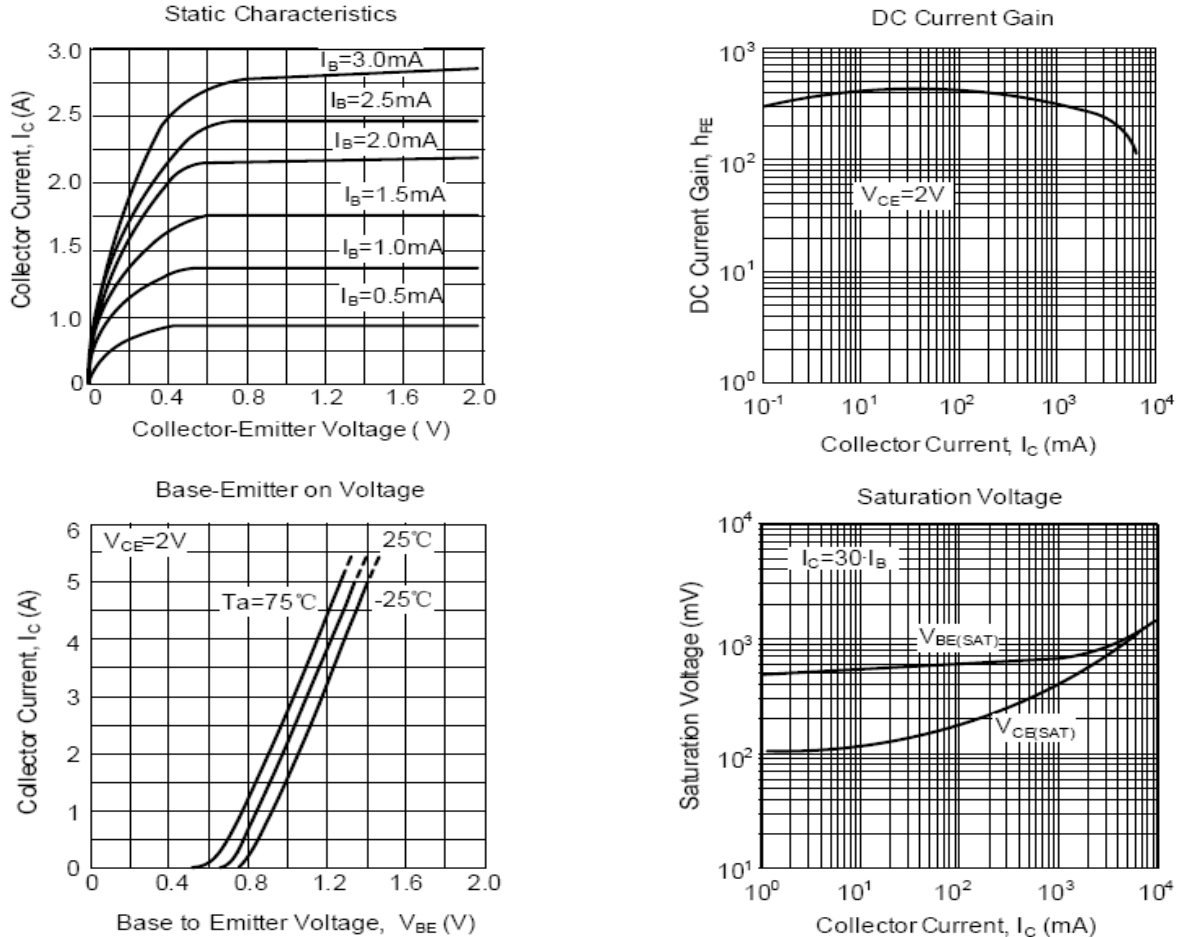
## ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	30			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	7			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=10V, I_E=0$			0.1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=7V, I_C=0$			0.1	$\mu A$
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C/I_B=3A/0.1A$			1	V
DC current gain(note)	$h_{FE}$	$V_{CE}=2V, I_C=1mA$		200		
		$V_{CE}=2V, I_C=0.5A$	230		800	
		$V_{CE}=2V, I_C=0.1A$	150			
Current gain bandwidth product	$f_T$	$V_{CE}=6V, I_C=50mA$		150		MHz
Output Capacitance	$C_{ob}$	$V_{CB}=20V, f=1MHz, I_E=0A$			50	pF

### CLASSIFICATION OF $h_{FE2}$

RANK	Q	R	S
RANGE	230-380	340-600	560-800

## TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified



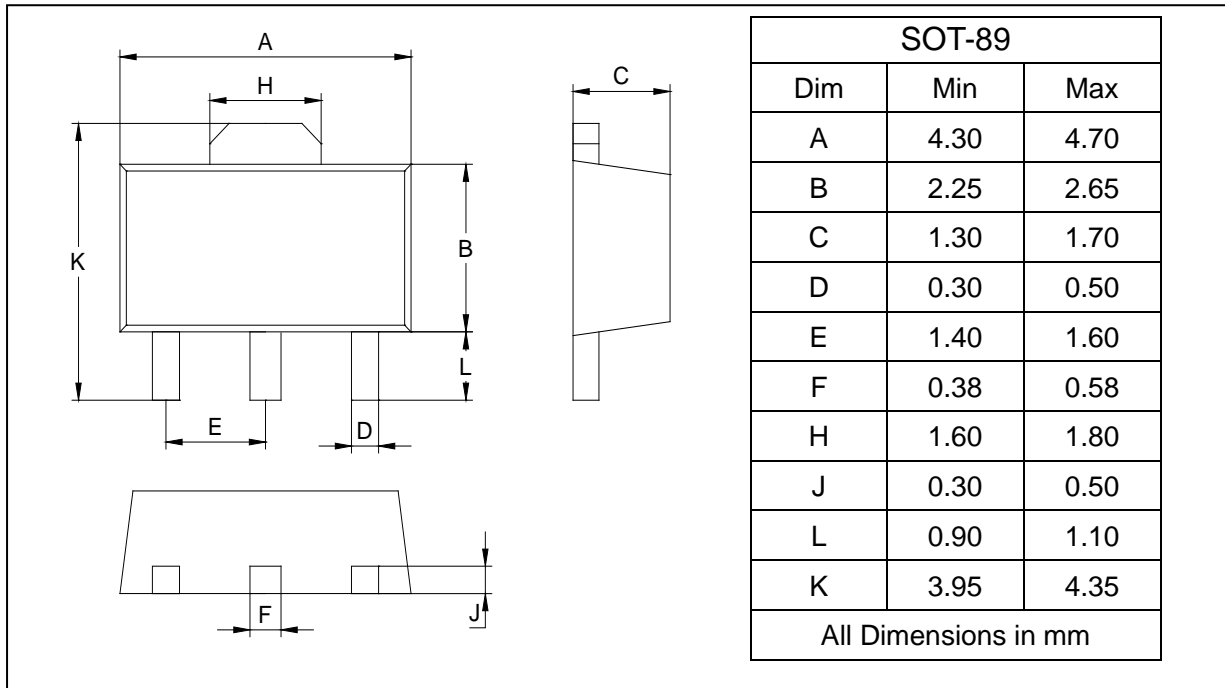
## LOW VOLTAGE HIGH CURRENT TRANSISTOR

## 2SD965A

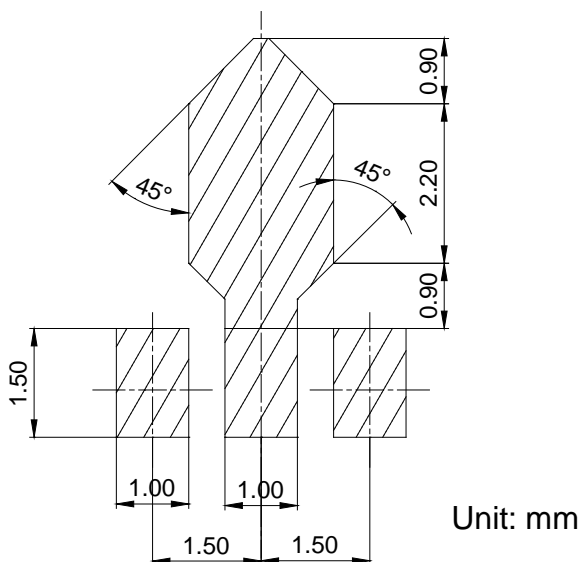
### PACKAGE OUTLINE

Plastic surface mounted package

SOT-89



### SOLDERING FOOTPRINT



### PACKAGE INFORMATION

Device	Package	Shipping
2SD965A	SOT-89	1000 pcs / Tape & Reel