

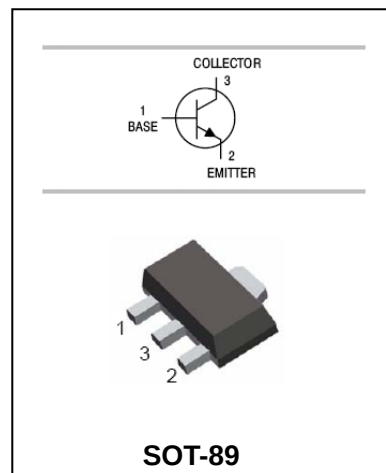
LOW VOLTAGE HIGH CURRENT TRANSISTOR

2SD965A

FEATURES

- Collector current up to 5A
- Collector-Emitter voltage up to 30V
- RoHS compliant with Halogen-free

HF



APPLICATIONS

- Audio amplifier
- Flash unit of camera
- Switching circuit

ORDERING INFORMATION

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

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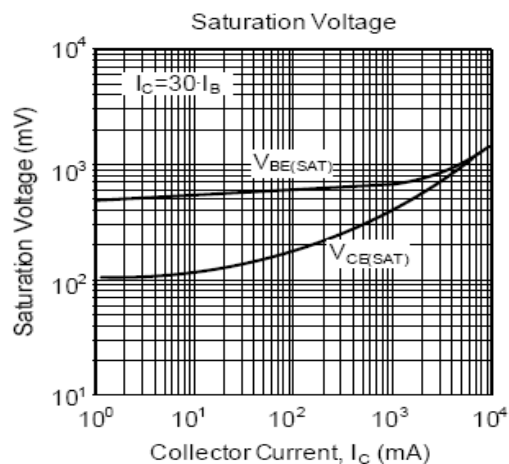
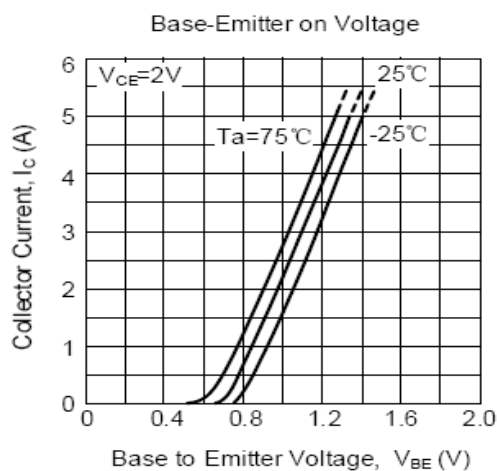
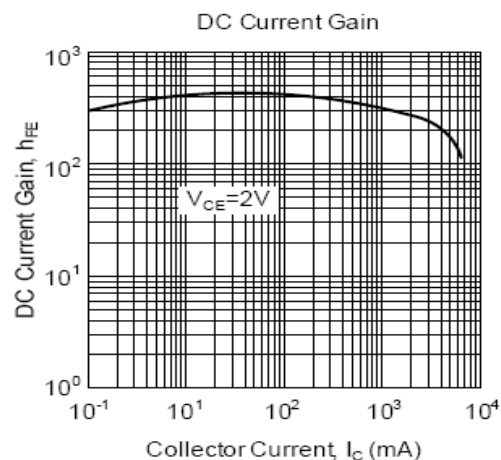
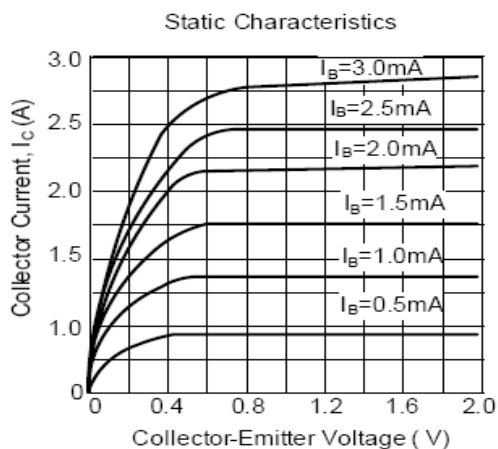
ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

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	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=7V, I_C=0$			0.1	μA
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



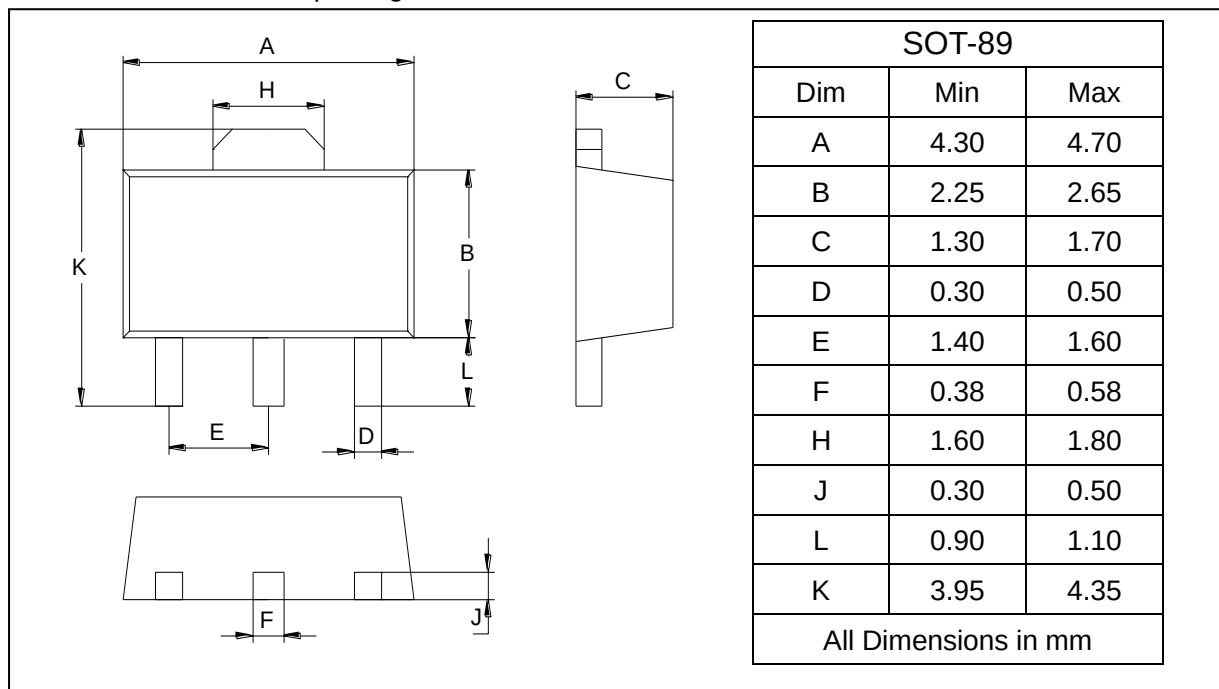
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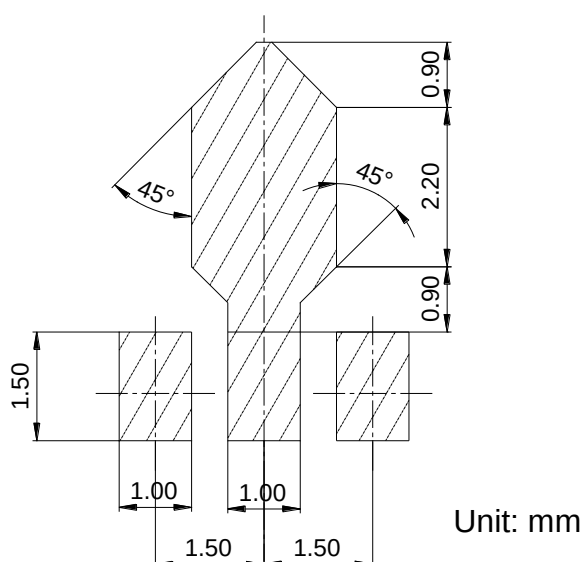
PACKAGE OUTLINE

Plastic surface mounted package

SOT-89



SOLDERING FOOTPRINT



PACKAGE INFORMATION

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