

## SOT-89 Plastic-Encapsulated Transistors

### 2SA1664 TRANSISTOR (PNP)

#### FEATURES

Power dissipation

$$P_{CM} : 0.5 \text{ W (Tamb=25°C)}$$

Collector current

$$I_{CM} : -0.8 \text{ A}$$

Collector-base voltage

$$V_{(BR)CBO} : -35 \text{ V}$$

Operating and storage junction temperature range

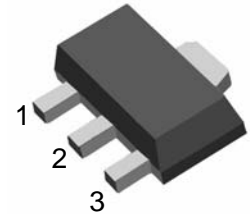
$$T_J, T_{stg}: -55°C \text{ to } +150°C$$

#### SOT-89

1. BASE

2. COLLECTOR

3. EMITTER



#### ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-1\text{mA}, I_E=0$	-35			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-10\text{mA}, I_B=0$	-30			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-1\text{mA}, I_C=0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=-35\text{V}, I_E=0$			-0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=-5\text{V}, I_C=0$			-0.1	$\mu\text{A}$
DC current gain	$h_{FE(1)}$	$V_{CE}=-1\text{V}, I_C=-100\text{mA}$	100		320	
	$h_{FE(2)}$	$V_{CE}=-1\text{V}, I_C=-700\text{mA}$	35			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-500\text{mA}, I_B=-20\text{mA}$			-0.7	V
Base-emitter voltage	$V_{BE}$	$V_{CE}=-1\text{V}, I_C=-10\text{mA}$	-0.5		-0.8	V
Transition frequency	$f_T$	$V_{CE}=-5\text{V}, I_C=-10\text{mA}$		120		MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=-10\text{V}, I_E=0, f=1\text{MHz}$		19		pF

#### CLASSIFICATION OF $h_{FE(1)}$

Rank	O	Y
Range	100-200	160-320
Marking	RO	RY