HFZT

# KTA1663

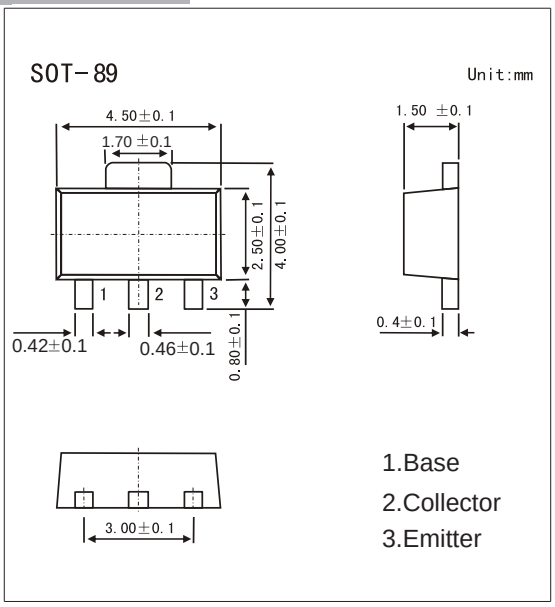
## SOT-89 Plastic-Encapsulate Transistors

### Features

- 1W (Mounted on Ceramic Substrate)
- Small Flat Package
- Comlementary to KTC4375
- PNP Transistors

### MECHANICAL DATA

- Case style:SOT-89molded plastic
- Mounting position:any




## MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

| Parameter | Symbol | Rating | Unit |
|---|---|---|---|
| Collector - Base Voltage | $V_{CBO}$ | -30 | V |
| Collector - Emitter Voltage | $V_{CEO}$ | -30 | |
| Emitter - Base Voltage | $V_{EBO}$ | -5 | |
| Collector Current - Continuous | $I_C$ | -1.5 | A |
| Base Current | $I_B$ | -0.3 | |
| Collector Power Dissipation | $P_C$ | 500 | mW |
| | | 1 | W |
| Junction Temperature | $T_J$ | 150 | ℃ |
| Storage Temperature range | $T_{stg}$ | -55 to 150 | |

**PACKAGE INFORMATION**

| Device | Package | Shipping |
|---|---|---|
| KTA1663 | SOT-89 | 1000/Tape&Reel |

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Collector- base breakdown voltage | $V_{CBO}$ | $I_C$= -1 mA, $I_E$=0 | -30 | | | V |
| Collector- emitter breakdown voltage | $V_{CEO}$ | $I_C$= -10 mA, $I_B$=0 | -30 | | | |
| Emitter - base breakdown voltage | $V_{EBO}$ | $I_E$= -1 mA, $I_C$=0 | -5 | | | |
| Collector-base cut-off current | $I_{CBO}$ | $V_{CB}$= -30V , $I_E$=0 | | | -0.1 | uA |
| Emitter cut-off current | $I_{EBO}$ | $V_{EB}$= -5V , $I_C$=0 | | | -0.1 | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C$=-1.5 A, $I_B$=-30mA | | | -2 | V |
| Base - emitter saturation voltage | $V_{BE(sat)}$ | $I_C$=-1.5 A, $I_B$=-30mA | | | -1.2 | |
| Base - emitter voltage | $V_{BE}$ | $V_{CE}$= -2V, $I_C$= -500mA | | | -1 | |
| DC current gain | $h_{FE}$ | $V_{CE}$= -2V, $I_C$= -500mA | 100 | | 320 | |
| Collector output capacitance | $C_{ob}$ | $V_{CB}$= -10V, $I_E$= 0,f=1MHz | | | 50 | pF |
| Transition frequency | $f_T$ | $V_{CE}$= -2V, $I_C$= -500mA | | 120 | | MHz |

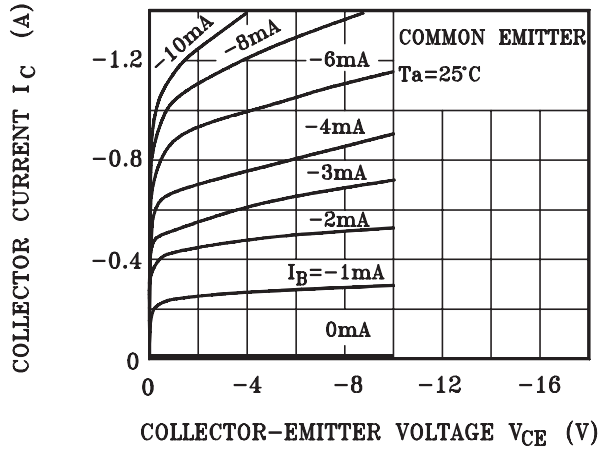
■ Classification of $h_{fe}$

| Type | KTA1663-O | KTA1663-Y |
|---|---|---|
| Range | 100-200 | 160-320 |
| Marking | HO | HY |

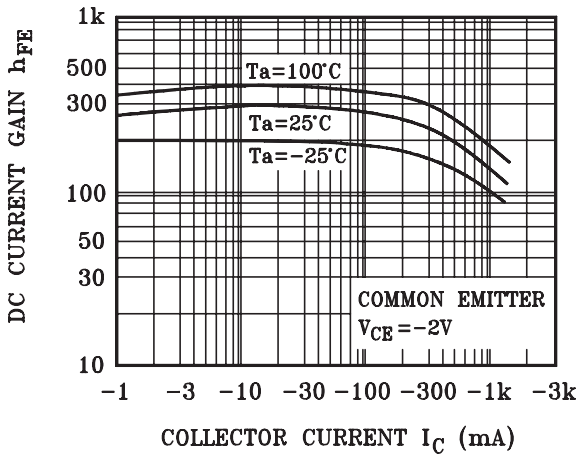
# RATINGS AND CHARACTERISTIC CURVES

■ Typical Characterisitics

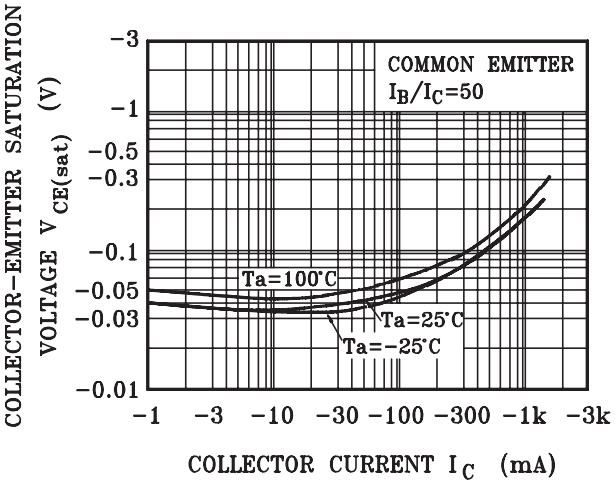
$I_C$ - $V_{CE}$



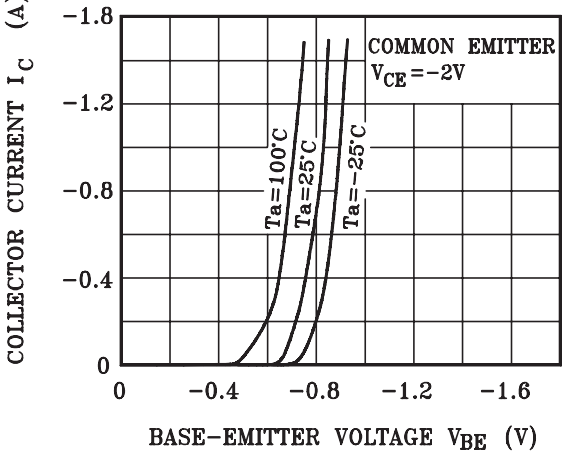

$h_{FE}$ - $I_C$



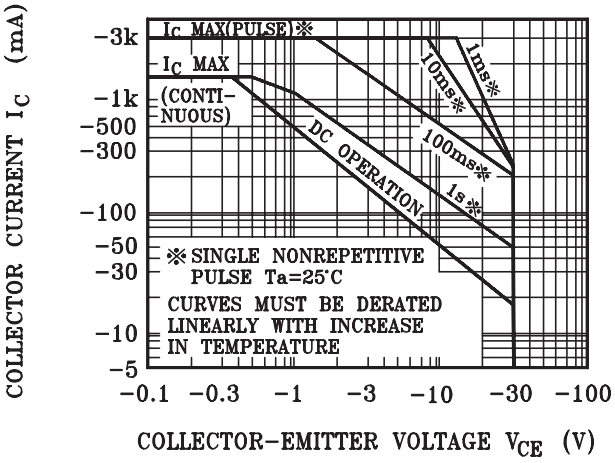

$V_{CE(sat)}$ - $I_C$




$I_C$ - $V_{BE}$




SAFE OPERATING AREA




$P_C$ - Ta