

## SOT-89 Plastic-Encapsulate Transistors

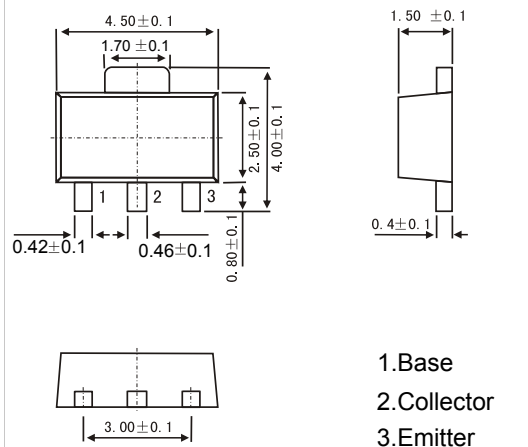
### Features

- Small Flat Package
- General Purpose Application
- NPN Transistors

### MECHANICAL DATA

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

SOT-89



## MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V <sub>CB0</sub>	100	V
Collector - Emitter Voltage	V <sub>CE0</sub>	80	
Emitter - Base Voltage	V <sub>EB0</sub>	5	
Collector Current - Continuous	I <sub>c</sub>	1	A
Collector Power Dissipation	P <sub>c</sub>	500	mW
Thermal Resistance From Junction To Ambient	R <sub>θJA</sub>	250	°C/W
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature Range	T <sub>stg</sub>	-55 to 150	

### PACKAGE INFORMATION

Device	Package	Shipping
KTD1898	SOT-89	1000/Tape&Reel

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V <sub>CB0</sub>	I <sub>c</sub> = 100 μA, I <sub>E</sub> = 0	100			V
Collector- emitter breakdown voltage	V <sub>CE0</sub>	I <sub>c</sub> = 1 mA, I <sub>B</sub> = 0	80			
Emitter - base breakdown voltage	V <sub>EB0</sub>	I <sub>E</sub> = 100 μA, I <sub>c</sub> = 0	5			
Collector-base cut-off current	I <sub>CB0</sub>	V <sub>CB</sub> = 80 V, I <sub>E</sub> = 0			1	μA
Emitter cut-off current	I <sub>EB0</sub>	V <sub>EB</sub> = 4V, I <sub>c</sub> =0			1	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>c</sub> =500 mA, I <sub>B</sub> =20mA			0.4	V
Base - emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>c</sub> =500 mA, I <sub>B</sub> =20mA			1	
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> = 3V, I <sub>c</sub> = 500mA	70		400	
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = 10V, I <sub>E</sub> = 0, f=1MHz		20		pF
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = 10V, I <sub>c</sub> = 50mA, f=100MHz		100		MHz

### Classification of h<sub>FE</sub>

Type	KTD1898-O	KTD1898-Y	KTD1898-G
Range	70-140	120-240	200-400
Marking	ZO	ZY	ZG