

## SOT-89 Plastic-Encapsulate Transistors

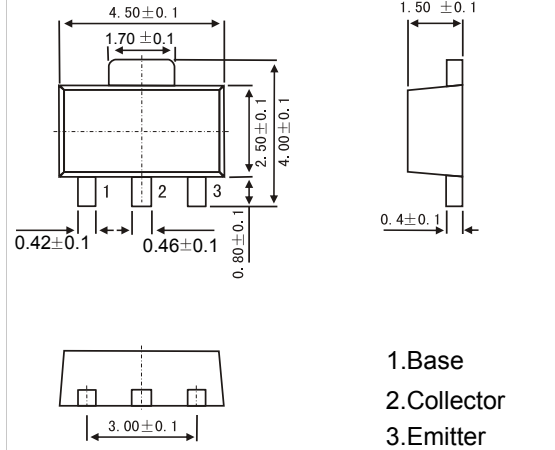
### Features

- Small Flat Package
- Audio Muting Application
- High Emitter-Base Voltage
- 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	$V_{CB0}$	25	V
Collector - Emitter Voltage	$V_{CE0}$	20	
Emitter - Base Voltage	$V_{EB0}$	12	
Collector Current - Continuous	$I_C$	300	mA
Collector Power Dissipation	$P_C$	500	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	250	°C/W
Junction Temperature	$T_J$	150	°C
Storage Temperature Range	$T_{stg}$	-55 to 150	

### PACKAGE INFORMATION

Device	Package	Shipping
KTD1302	SOT-89	1000/Tape&Reel

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{CB0}$	$I_C = 100 \mu A, I_E = 0$	25			V
Collector-emitter breakdown voltage	$V_{CE0}$	$I_C = 1 mA, I_B = 0$	20			
Emitter-base breakdown voltage	$V_{EB0}$	$I_E = 100 \mu A, I_C = 0$	12			
Collector-base cut-off current	$I_{CB0}$	$V_{CB} = 25 V, I_E = 0$			0.1	uA
Emitter cut-off current	$I_{EB0}$	$V_{EB} = 12 V, I_C = 0$			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 100 mA, I_B = 10 mA$			0.25	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 100 mA, I_B = 10 mA$			1	
DC current gain	$h_{FE}$	$V_{CE} = 2V, I_C = 4mA$ (FOR)	200		800	
		$V_{CE} = 2V, I_C = 4mA$ (REV)	20			
Collector output capacitance	$C_{ob}$	$V_{CB} = 10V, I_E = 0, f = 1MHz$		10		pF
Transition frequency	$f_T$	$V_{CE} = 10V, I_C = 1mA, f = 100MHz$		60		MHz

### Marking

Marking	1302
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