KTD1302 TRANSISTOR (NPN)

1.BASE
2.COLLECTOR
3.EMITTER

SOT-89

FEATURES

- Small Flat Package
- Audio Muting Application
- High Emitter-Base Voltage

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	25	V
V_{CEO}	Collector-Emitter Voltage	20	V
V_{EBO}	Emitter-Base Voltage	12	V
I_C	Collector Current	300	mA
P_C	Collector Power Dissipation	500	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	250	℃/W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=0.1mA,I_E=0	25			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA,I_B=0	20			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=0.1mA,I_C=0	12			V
Collector cut-off current	I_{CBO}	V_{CB}=25V,I_E=0			100	nA
Emitter cut-off current	I_{EBO}	V_{EB}=12V,I_C=0			100	nA
DC current gain	$h_{FE(1)\ (FOR)}$	V_{CE}=2V, I_C=4mA	200		800	
	$h_{FE(2)(REV)}$	V_{CE}=2V, I_C=4mA	20			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=100mA,I_B=10mA			0.25	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=100mA,I_B=10mA			1	V
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