

**SEMICONDUCTOR
TECHNICAL DATA**

KTD1302
EPITAXIAL PLANAR NPN TRANSISTOR

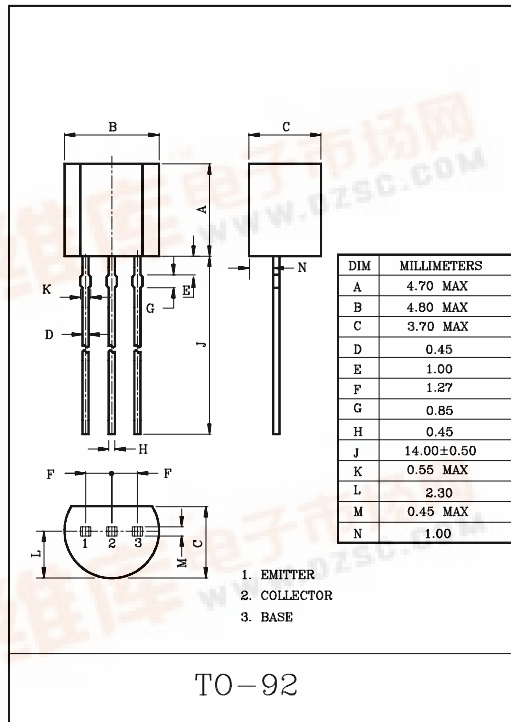
AUDIO MUTING APPLICATION.

FEATURES

- High Emitter-Base Voltage : $V_{EBO}=12V(\text{Min.})$.
- High Reverse h_{FE}
: Reverse $h_{FE}=20(\text{Min.})(V_{CE}=2V, I_C=4mA)$.
- Low on Resistance : $R_{ON}=0.6\Omega(\text{Typ.})(I_B=1mA)$.

MAXIMUM RATINGS ($T_a=25^\circ C$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	25	V
Collector-Emitter Voltage	V_{CEO}	20	V
Emitter-Base Voltage	V_{EBO}	12	V
Collector Current	I_C	300	mA
Base Current	I_B	30	mA
Collector Power Dissipation	P_C	625	mW
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55~150	$^\circ C$



ELECTRICAL CHARACTERISTICS ($T_a=25^\circ C$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=25V, I_E=0$	-	-	0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=-12V, I_C=0$	-	-	0.1	μA
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	$V_{BE(sat)}$	$I_C=100mA, I_B=10mA$	-	-	1.0	V
Transition Frequency	f_T	$V_{CE}=10V, I_C=1mA$	-	60	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$	-	10	-	pF
On Resistance	R_{on}	$f=1KHz, I_B=1mA, V_{IN}=0.3V$	-	0.6	-	Ω



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