

KEC

SEMICONDUCTOR
TECHNICAL DATA

KTC5200

TRIPLE DIFFUSED NPN TRANSISTOR

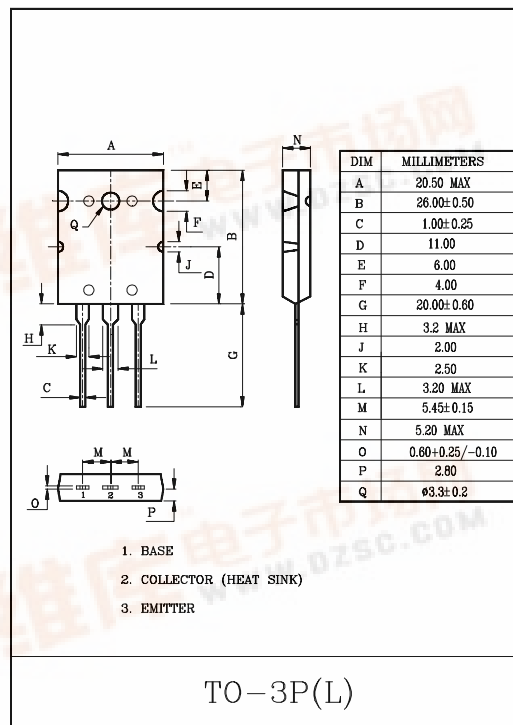
POWER AMPLIFIER APPLICATIONS.

FEATURES

- Complementary to KTA1943.
- Recommended for 100W High Fidelity Audio Frequency Amplifier Output Stage.

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	230	V
Collector-Emitter Voltage	V_{CEO}	230	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_{C}	15	A
Base Current	I_{B}	1.5	A
Collector Power Dissipation ($T_{\text{c}}=25^{\circ}\text{C}$)	P_{C}	150	W
Junction Temperature	T_{j}	150	$^{\circ}\text{C}$
Storage Temperature Range	T_{stg}	$-55\sim 150$	$^{\circ}\text{C}$

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{\text{CB}}=230\text{V}$, $I_{\text{E}}=0$	—	—	5.0	μA
Emitter Cut-off Current	I_{EBO}	$V_{\text{EB}}=5\text{V}$, $I_{\text{C}}=0$	—	—	5.0	μA
Collector-Emitter Breakdown Voltage	$V_{(\text{BR})\text{CEO}}$	$I_{\text{C}}=50\text{mA}$, $I_{\text{B}}=0$	230	—	—	V
DC Current Gain	$h_{\text{FE}} (1)$ (Note)	$V_{\text{CE}}=5\text{V}$, $I_{\text{C}}=1\text{A}$	55	—	160	
	$h_{\text{FE}} (2)$	$V_{\text{CE}}=5\text{V}$, $I_{\text{C}}=7\text{A}$	35	60	—	
Collector-Emitter Saturation Voltage	$V_{\text{CE(sat)}}$	$I_{\text{C}}=8\text{A}$, $I_{\text{B}}=800\text{mA}$	—	0.40	3.0	V
Base-Emitter Voltage	V_{BE}	$V_{\text{CE}}=5\text{V}$, $I_{\text{C}}=7\text{A}$	—	1.0	1.5	V
Transition Frequency	f_{T}	$V_{\text{CE}}=5\text{V}$, $I_{\text{C}}=1\text{A}$	—	30	—	MHz
Collector Output Capacitance	C_{ob}	$V_{\text{CB}}=10\text{V}$, $I_{\text{E}}=0$, $f=1\text{MHz}$	—	200	—	pF

Note : h_{FE} Classification R:55~110 , O:80~160

KTC5200

