

**Silicon PNP Power Transistor**

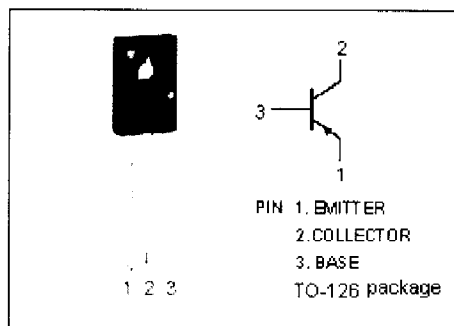
**BD720**

**DESCRIPTION**

- DC Current Gain-  
:  $h_{FE} = 40 @ I_C = -0.5A$
- Collector-Emitter Breakdown Voltage -  
:  $V_{(BR)CEO} = -60V(\text{Min})$
- Complement to type BD719

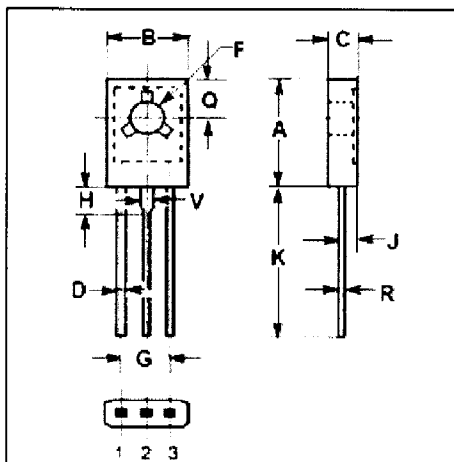
**APPLICATIONS**

- Designed for use in audio output and general purpose amplifier applications.



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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-60	V
$V_{CEO}$	Collector-Emitter Voltage	-60	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current-Continuous	-4	A
$I_{CM}$	Collector Current-Peak	-7	A
$I_B$	Base Current-Continuous	-1	A
$P_C$	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	30	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-65~150	$^\circ\text{C}$



DIM	mm	
	MIN	MAX
A	10.70	10.90
B	7.70	7.90
C	2.60	2.80
D	0.66	0.86
F	3.40	3.30
G	4.48	4.68
H	2.00	2.20
J	1.35	1.55
K	16.10	16.30
Q	3.70	3.90
R	0.40	0.60
V	1.17	1.37

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th-jc}$	Thermal Resistance, Junction to Case	3.5	$^\circ\text{C/W}$
$R_{th-ja}$	Thermal Resistance, Junction to Ambient	100	$^\circ\text{C/W}$

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# BD720

## ELECTRICAL CHARACTERISTICS

$T_C=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -30\text{mA}; I_B = 0$	-60			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -2\text{A}; I_B = -0.2\text{A}$			-1.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = -2\text{A}; V_{CE} = -4\text{V}$			-1.4	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB} = -60\text{V}; I_E = 0$			-50	$\mu\text{A}$
		$V_{CB} = -30\text{V}; I_E = 0; T_C = 150^\circ\text{C}$			-1	mA
$I_{CEO}$	Collector Cutoff Current	$V_{CE} = -30\text{V}; I_B = 0$			-0.1	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -5\text{V}; I_C = 0$			-0.2	mA
$h_{FE-1}$	DC Current Gain	$I_C = -0.5\text{A}; V_{CE} = -4\text{V}$	40			
$h_{FE-2}$	DC Current Gain	$I_C = -2\text{A}; V_{CE} = -4\text{V}$	20			
$f_T$	Current-Gain—Bandwidth Product	$I_C = -0.5\text{A}; V_{CE} = -4\text{V}$	3			MHz

### Switching Times

$t_{on}$	Turn-On time	$I_C = -1\text{A}; I_{B1} = -I_{B2} = -0.1\text{A}; V_{CC} = -20\text{V}$		0.1		$\mu\text{s}$
$t_{off}$	Turn-Off time			0.4		$\mu\text{s}$