

DESCRIPTION

- Collector-Emitter Sustaining Voltage-
: $V_{CEO(sus)} = 45V(\text{Min})$
- High DC Current Gain
: $h_{FE} = 750(\text{Min}) @ I_C = 3A$
- Low Collector Saturation Voltage
: $V_{CE(sat)} = 2.0 V (\text{Max}) @ I_C = 3.0 A$
- Complement to Type BDX54

APPLICATIONS

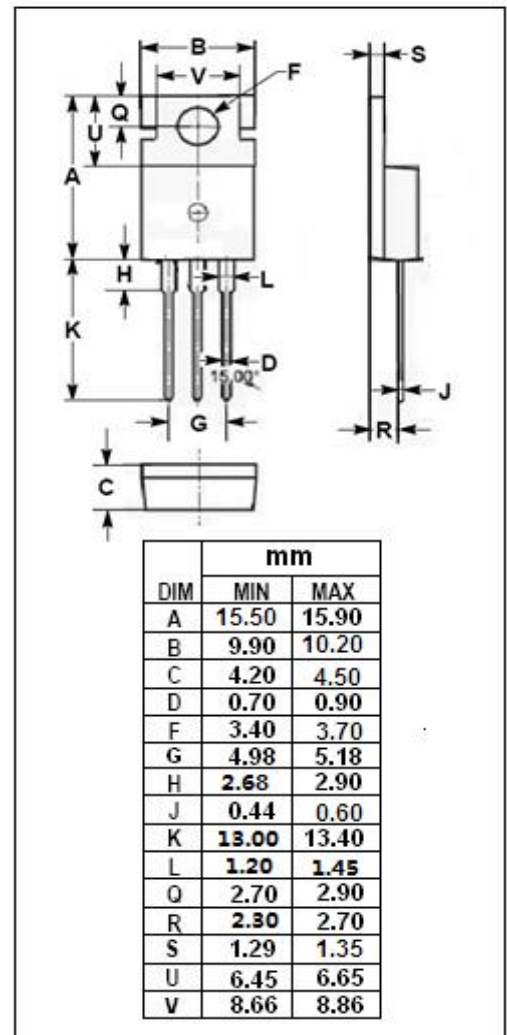
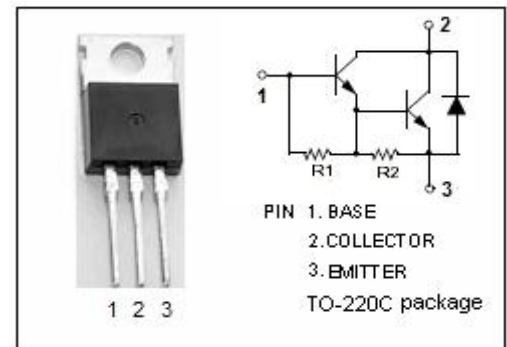
- Designed for general-purpose amplifier and low-speed switching applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	45	V
V_{CEO}	Collector-Emitter Voltage	45	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	8	A
I_{CP}	Collector Current-Peak	12	A
I_B	Base Current-Continuous	0.2	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	60	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	1.92	$^\circ\text{C/W}$



ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Breakdown Voltage	$I_C=50\text{mA}; I_B=0$	45			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=3\text{A}; I_B=12\text{mA}$			2.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=3\text{A}; I_B=12\text{mA}$			2.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=45\text{V}; I_E=0$			0.2	mA
I_{CEO}	Collector Cutoff Current	$V_{CE}=45\text{V}; I_B=0$			0.5	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=5\text{V}; I_C=0$			2	mA
h_{FE}	DC Current Gain	$I_C=3\text{A}; V_{CE}=3\text{V}$	750			
V_F	Parallel Diode Forward Voltage	$I_F=3\text{A}$		1.8	2.5	V
		$I_F=8\text{A}$		2.5		