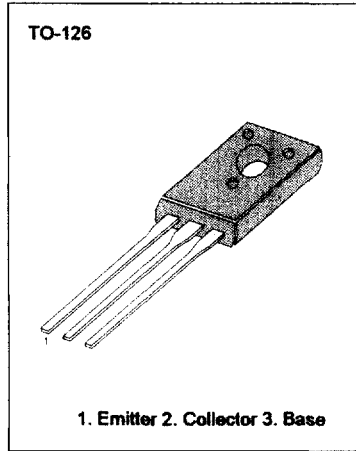


MEDIUM POWER LINEAR AND SWITCHING APPLICATIONS

• Complement to BD 176/178/180 respectively

VABSOLUTE MAXIMUM RATINGS

Characteristic	Symbol	Rating	Unit
* Collector Base Voltage : BD175	V_{CBO}	45	V
: BD177		60	V
: BD179		80	V
Collector Emitter Voltage : BD175	V_{CEO}	45	V
: BD177		60	V
: BD179		80	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current (DC)	I_C	3	A
Collector Current (Pulse)	I_C	7	A
Collector Dissipation ($T_C=25^\circ C$)	P_C	30	W
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature	T_{STG}	- 55 ~ 150	$^\circ C$



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

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
* Collector Emitter Sustaining Voltage : BD175	$V_{CEO(sus)}$	$I_C = 100mA, I_B = 0$	45			V
: BD177			60			V
: BD179			80			V
Collector Cutoff Current : BD175	I_{CBO}	$V_{CB} = 45V, I_E = 0$			100	μA
: BD177		$V_{CB} = 60V, I_E = 0$			100	μA
: BD179		$V_{CB} = 80V, I_E = 0$			100	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = 5V, I_C = 0$			1	mA
* DC Current Gain	h_{FE1}	$V_{CE} = 2V, I_C = 150mA$	40		250	
	h_{FE2}	$V_{CE} = 2V, I_C = 1A$	15			
* Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 1A, I_B = 0.1A$			0.8	V
* Base Emitter On Voltage	$V_{BE(on)}$	$V_{CE} = 2V, I_C = 1A$			1.3	V
Current Gain Bandwidth Product	f_T	$V_{CE} = 10V, I_C = 250mA$	3			MHz

* Pulse Test : PW=300uS, duty Cycle \leq 1.5% Pulsed

$h_{FE}(1)$ CLASSIFICNTION

Classification	6	10	16
h_{FE1}	40 - 100	63 - 160	100 - 250

* Classification 16 : Only BD 175

