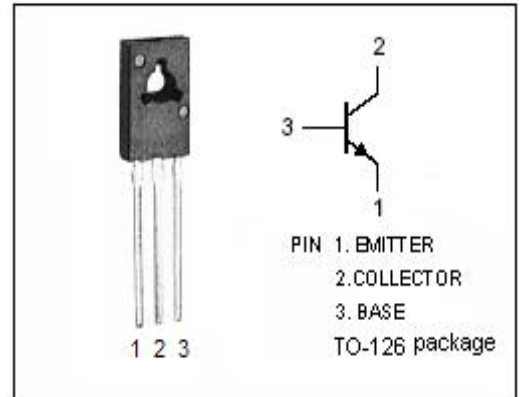


isc Silicon NPN Power Transistors
BD375/377/379
DESCRIPTION

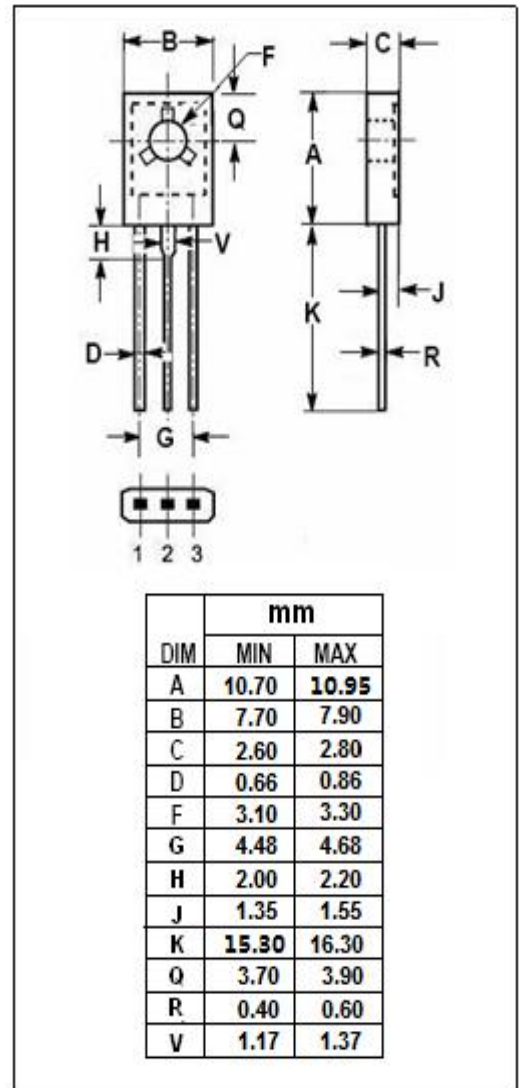
- DC Current Gain-
: $h_{FE} = 20(\text{Min}) @ I_C = 1A$
- Complement to Type BD376/378/380
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for medium power linear and switching applications


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

SYMBOL	PARAMETER	VALUE	UNIT	
V_{CBO}	Collector-Base Voltage	BD375	50	V
		BD377	75	
		BD379	100	
V_{CEO}	Collector-Emitter Voltage	BD375	45	V
		BD377	60	
		BD379	80	
V_{EBO}	Emitter-Base Voltage	5	V	
I_C	Collector Current-Continuous	2	A	
I_{CM}	Collector Current-Peak	3	A	
I_B	Base Current-Continuous	1	A	
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	25	W	
T_J	Junction Temperature	150	$^\circ\text{C}$	
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$	



isc Silicon NPN Power Transistors
BD375/377/379
ELECTRICAL CHARACTERISTICS

 T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE0(SUS)}	Collector-Emitter Sustaining Voltage	BD375	I _C = 30mA ; I _B = 0			V
		BD377				
		BD379				
V _{CB0}	Collector-Base Voltage	BD375	I _C = 0.1mA ; I _E = 0			V
		BD377				
		BD379				
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 1A; I _B = 0.1A			1.0	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = 1A; V _{CE} = 2V			1.5	V
I _{CB0}	Collector Cutoff Current	BD375	V _{CB} = 45V; I _E = 0			μ A
		BD377				
		BD379				
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			0.1	mA
h _{FE-1}	DC Current Gain	I _C = 0.15A ; V _{CE} = 2V	40		375	
h _{FE-2}	DC Current Gain	I _C = 1A; V _{CE} = 2V	20			
Switching Times						
t _{on}	Turn-On Time	I _C = 0.5A; I _{B1} = -I _{B2} = 50mA; V _{CC} = 30V		0.05		μ s
t _{off}	Turn-Off Time			0.5		μ s

◆ h_{FE-1} Classifications

6	10	16	25
40-100	63-160	100-250	150-375

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