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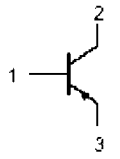
Silicon PNP Power Transistor

BD277

DESCRIPTION

- Wide Area of Safe Operation
- Low Saturation Voltage-
- High Power Dissipation



PIN 1. BASE
2. COLLECTOR
3. EMITTER
TO-220C package

APPLICATIONS

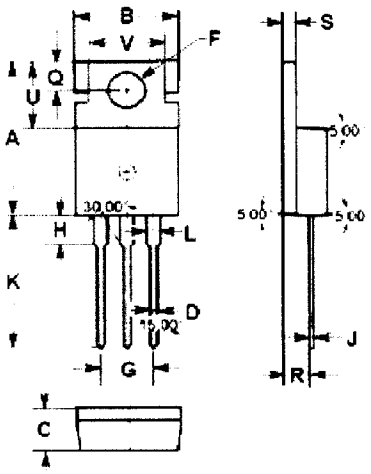
- Designed for use in series regulators and shunt regulators.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-45	V
V_{CEO}	Collector-Emitter Voltage	-45	V
V_{EBO}	Emitter-Base Voltage	-4	V
I_C	Collector Current-Continuous	-7	A
I_B	Base Current	-3	A
P_C	Collector Power Dissipation @ T_C=25℃	70	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	1.78	℃/W
$R_{th\ j\text{-}a}$	Thermal Resistance, Junction to Ambient	70	℃/W



DIM	mm MIN	mm MAX
A	15.70	15.90
B	9.90	10.10
C	4.20	4.40
D	0.70	0.90
F	3.40	3.60
G	4.98	5.18
H	2.70	2.90
J	0.44	0.46
K	13.20	13.40
L	1.10	1.30
Q	2.70	2.90
R	2.50	2.70
S	1.29	1.31
U	6.45	6.65
V	8.66	8.86

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= -0.1A ;I_B= 0	-45		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= -1.75A; I_B= -0.1A		-0.5	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= -1.75A ; V_{CE}= -2V		-1.2	V
I_{CBO}	Collector Cutoff Current	V_{CB}= -45V; I_E= 0		-0.1	mA
		V_{CB}= -40V; I_E= 0; T_C= 150℃		-2.0	
I_{CEO}	Collector Cutoff Current	V_{CE}= -30V; I_B= 0		-1.0	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= -4V; I_C= 0		-1.0	mA
h_{FE}	DC Current Gain	I_C= -1.75A; V_{CE}= -2V	30	150	
f_T	Current-Gain—Bandwidth Product	I_C= -0.5A; V_{CE}= -4V	10		MHz