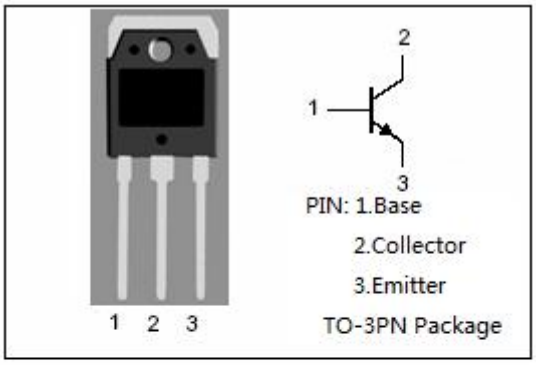
isc Silicon NPN Power Transistor 3DD4515

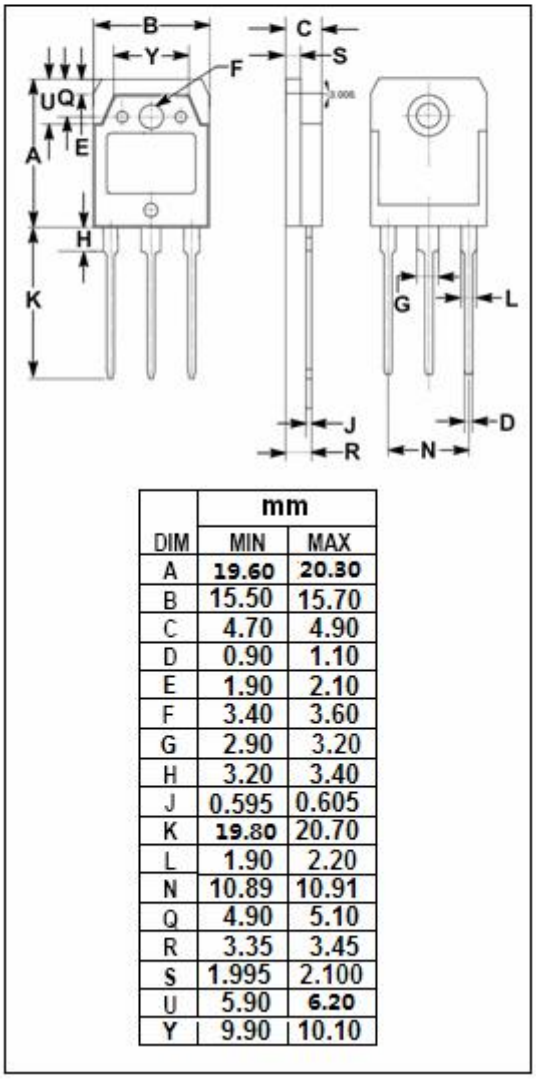


DESCRIPTION

- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 400V(Min)
- Collector-Emitter Saturation Voltage-
  : $V_{CE(sat)}$= 1.0V(Max) @I_C=10A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for power amplifier,high speed switching and regulated power supply applications.



DIM	mm MIN	MAX
A	19.60	20.30
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	19.80	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.20
Y	9.90	10.10

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	700	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	9	V
I_C	Collector Current-Continuous	15	A
P_C	Collector Power Dissipation @ T_C=75℃	120	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	1.05	℃/W

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 1mA; I_C= 0	9			V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C=10mA; I_B= 0	400			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C= 1mA; I_E= 0	700			V
h_{FE1}	DC Current Gain	I_C= 2A; V_{CE}= 5V	15		50	
h_{FE2}	DC Current Gain	I_C= 5A; V_{CE}= 5V	10		45	
h_{FE3}	DC Current Gain	I_C= 10A; V_{CE}= 5V	8			
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 10A; I_B= 2A			1.0	V
$V_{BE(sat)}$	Base -Emitter Saturation Voltage	I_C= 10A; I_B= 2A			1.5	V
t_f	Fall Time	V_{CC}=24V,I_C=6A,I_{B1}=-I_{B2}=1.2A			0.7	μs
t_{stg}	Storage Time	V_{CC}=24V,I_C=6A,I_{B1}=-I_{B2}=1.2A			3	us
f_T	Current-Gain—Bandwidth Product	I_E= -0.5A ; V_{CE}= 10V	4			MHz