

isc Silicon NPN Power Transistor**3DD100A****DESCRIPTION**

- With TO-66 packaging
- Large collector current
- Low collector saturation voltage
- High power dissipation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

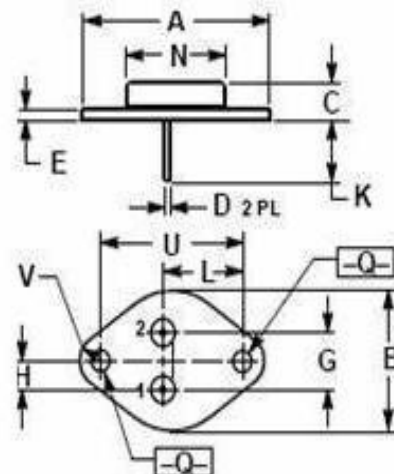
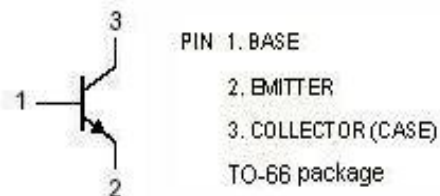
- Designed for use in DC-DC converter
- Driver of solenoid or motor

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	150	V
V_{CEO}	Collector-Emitter Voltage	100	V
V_{EBO}	Emitter-Base Voltage	4	V
I_C	Collector Current-Continuous	1.5	A
P_D	Total Power Dissipation@ $T_C=75^{\circ}\text{C}$	20	W
T_J	Max.Junction Temperature	175	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55~175	$^{\circ}\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance,Junction to Case	5.0	$^{\circ}\text{C/W}$



DIM	mm	
	MIN	MAX
A	31.40	31.80
B	17.30	17.70
C	6.70	7.10
D	0.70	0.90
E	1.40	1.60
G	5.08	
H	2.54	
K	9.80	10.20
L	14.70	14.90
N	12.40	12.60
Q	3.60	3.80
U	24.30	24.50
V	3.50	3.70

isc Silicon NPN Power Transistor**3DD100A****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
BV_{CEO}	Collector-Emitter Sustaining Voltage	$I_C = 1\text{mA}; I_B = 0$	100		V
BV_{CBO}	Collector-Base Sustaining Voltage	$I_C = 1\text{mA}; I_E = 0$	150		V
BV_{EBO}	Emitter-Base Sustaining Voltage	$I_E = 1\text{mA}; I_C = 0$	4		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 1\text{A}; I_B = 0.1\text{A}$		1.5	V
I_{CEO}	Collector Cutoff Current	$V_{CE} = 50\text{V}; I_B = 0$		0.2	mA
I_{CBO}	Collector Cutoff Current	$V_{CB} = 50\text{V}; I_E = 0$		0.5	mA
h_{FE}	DC Current Gain	$I_C = 0.5\text{A}; V_{CE} = 5\text{V}$	40		