

isc Silicon PNP Power Transistors

3CD9B

DESCRIPTION

- With TO-3 packaging
- Large collector current
- Low collector saturation voltage
- High power dissipation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

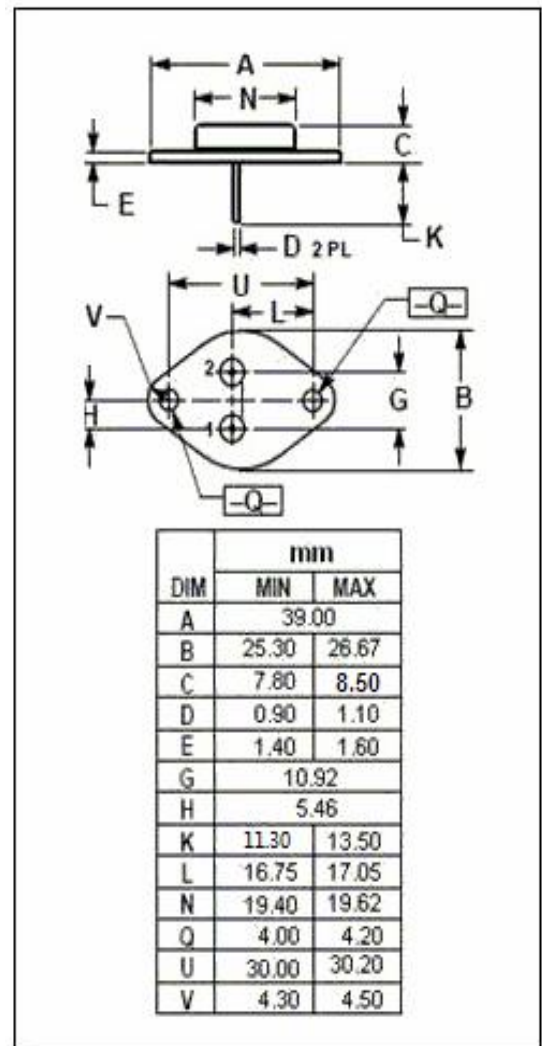
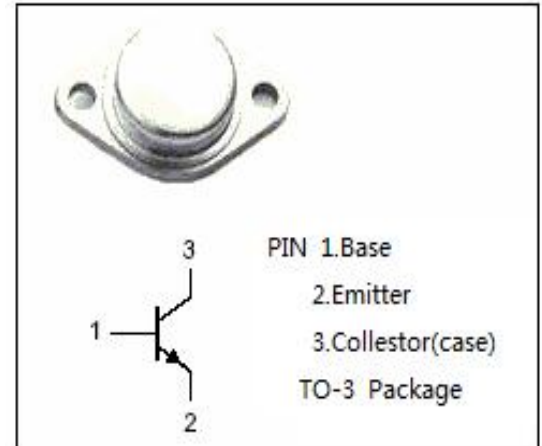
- Designed for use in DC-DC converter
- Driver of solenoid or motor

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-4	V
I_C	Collector Current-Continuous	-15	A
P_C	Collector Power Dissipation@ $T_c=75^{\circ}\text{C}$	150	W
T_J	Junction Temperature	-55~150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55~150	$^{\circ}\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.66	$^{\circ}\text{C/W}$



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ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(BR)}$	Collector-Emitter Breakdown Voltage	$I_C=-10\text{mA}$; $I_B=0$	-50		V
$V_{EBO(BR)}$	Emitter-Base Breakdown Voltage	$I_E=-10\text{mA}$; $I_C=0$	-4		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=-7.5\text{A}$; $I_B=-1.5\text{A}$		-2	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=-7.5\text{A}$; $I_B=-1.5\text{A}$		-2	V
I_{CEO}	Collector Cutoff Current	$V_{CE}=-50\text{V}$; $I_B=0$		-3.0	mA
I_{CBO}	Collector Cutoff Current	$V_{CB}=-50\text{V}$; $I_E=0$		-1.0	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=-4\text{V}$; $I_C=0$		-1.0	mA
h_{FE}	DC Current Gain	$I_C=-7.5\text{A}$; $V_{CE}=-10\text{V}$	10	180	