

**isc Silicon PNP Power Transistors**

**3CD9C**

**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**

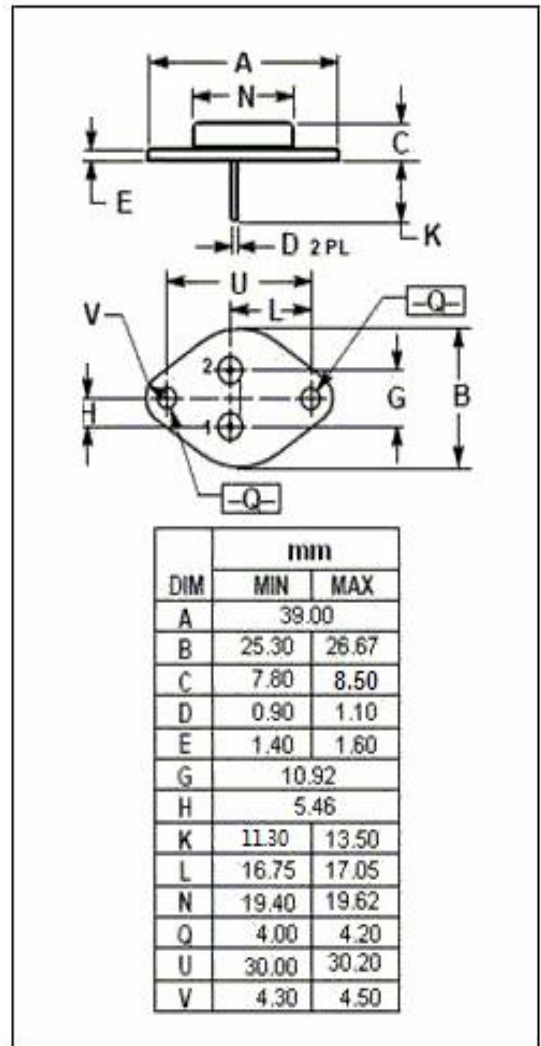
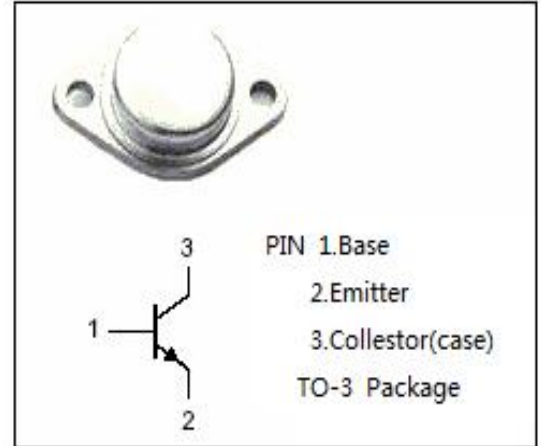
- Designed for use in DC-DC converter
- Driver of solenoid or motor

**ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CB0</sub>	Collector-Base Voltage	-80	V
V <sub>CEO</sub>	Collector-Emitter Voltage	-80	V
V <sub>EBO</sub>	Emitter-Base Voltage	-4	V
I <sub>c</sub>	Collector Current-Continuous	-15	A
P <sub>c</sub>	Collector Power Dissipation@T <sub>c</sub> =75°C	150	W
T <sub>J</sub>	Junction Temperature	-55~150	°C
T <sub>stg</sub>	Storage Temperature	-55~150	°C

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	0.66	°C/W



**isc Silicon PNP Power Transistors**

**3CD9C**

**ELECTRICAL CHARACTERISTICS**

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

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(BR)}$	Collector-Emitter Breakdown Voltage	$I_C=-10\text{mA}; I_B=0$	-80		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	$V_{CE}=-80\text{V}; I_B=0$		-3.0	mA
$I_{CBO}$	Collector Cutoff Current	$V_{CB}=-80\text{V}; I_E=0$		-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	