

isc Silicon PNP Power Transistor

NTE388

DESCRIPTION

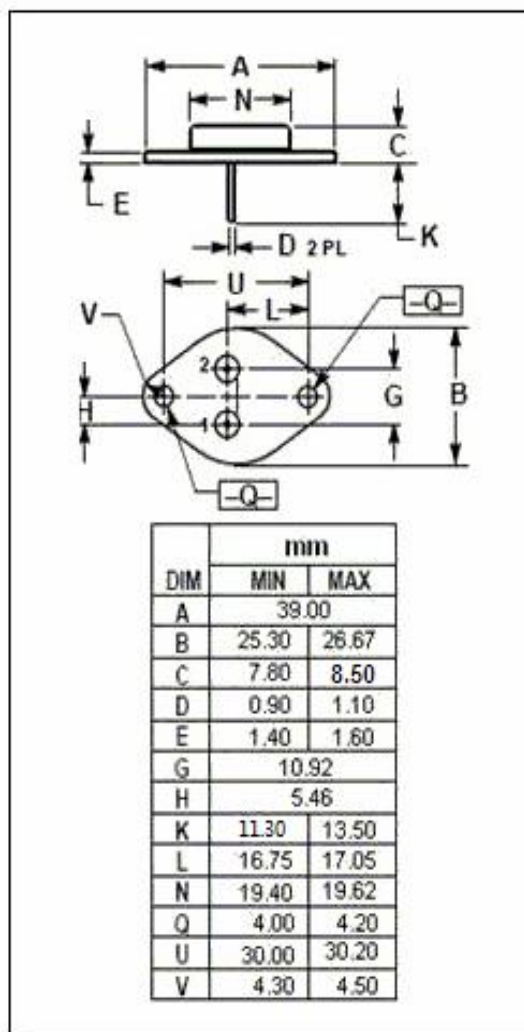
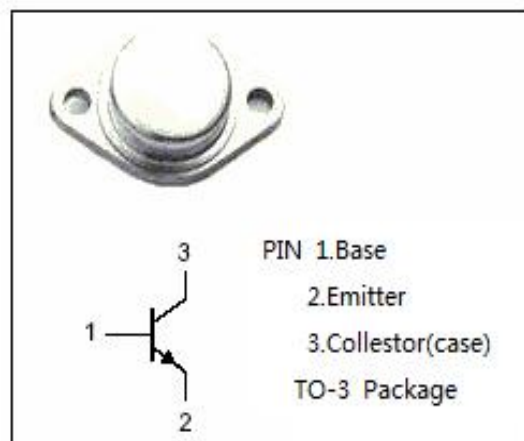
- With TO-3 packaging
- Large collector current
- Low collector saturation voltage
- High power dissipation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

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	400	V
V_{CEO}	Collector-Emitter Voltage	250	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	16	A
I_{CP}	Collector Current-Pulse	30	A
I_B	Base Current-Continuous	5	A
P_C	Collector Power Dissipation @ $T_C=25^{\circ}\text{C}$	33	W
	Collector Power Dissipation @ $T_a=25^{\circ}\text{C}$	0.26	
T_J	Junction Temperature	-65~200	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-65~200	$^{\circ}\text{C}$



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C=8\text{A}; I_B=800\text{mA}$			1.4	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C=16\text{A}; I_B=3.2\text{A}$			4.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C=8\text{A}; V_{CE}=4\text{V}$			2.2	V
V_{CBO}	Collector-Base Breakdown Voltage	$I_C=1\text{mA}; I_B=0$	400			
V_{CEO}	Collector-Emitter Breakdown Voltage	$I_C=100\text{mA}; I_E=0$	250			
V_{EBO}	Emitter-Base Breakdown Voltage	$I_E=1\text{mA}; I_B=0$	5			
I_{CEO}	Collector Cutoff Current	$V_{CE}=200\text{V}; I_E=0$			500	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=5\text{V}; I_C=0$			500	μA
h_{FE-1}	DC Current Gain	$I_C=8\text{A}; V_{CE}=4\text{V}$	15		60	
h_{FE-2}	DC Current Gain	$I_C=16\text{A}; V_{CE}=4\text{V}$	5			

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