

# isc Silicon PNP Power Transistor

**NTE68**

## DESCRIPTION

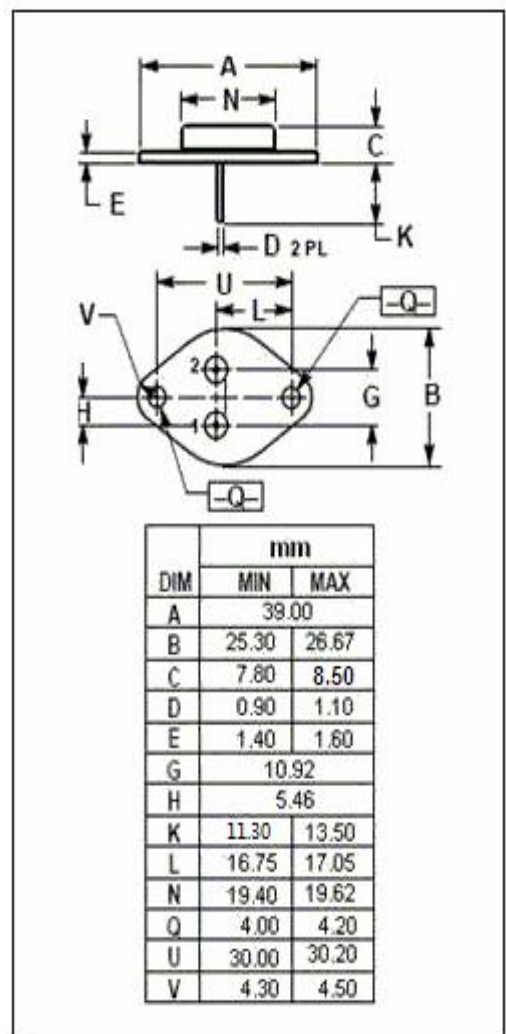
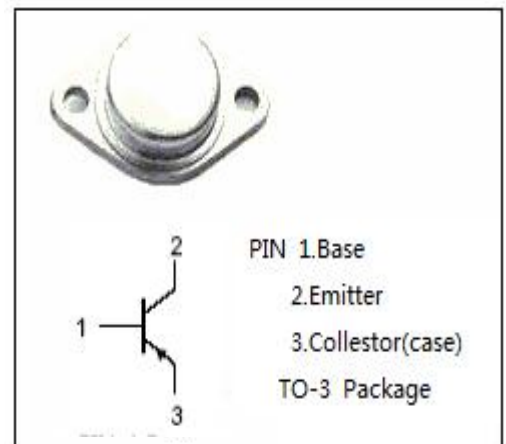
- With TO-3 packaging
- Large collector current
- Low collector saturation voltage
- High power dissipation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## 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	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -5\text{V}; I_C = 0$			-500	$\mu\text{A}$
$h_{FE-1}$	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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