

isc Silicon PNP Power Transistor

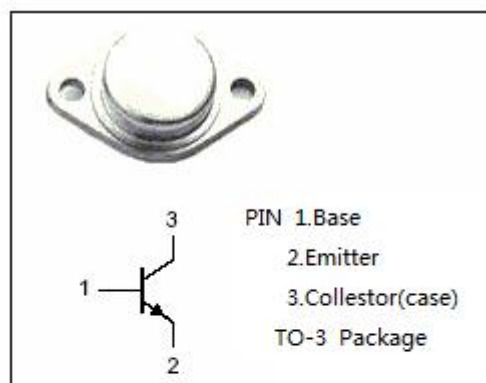
2N3790

DESCRIPTION

- Excellent Safe Operating Area
- Low Collector-Emitter Saturation Voltage
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation.

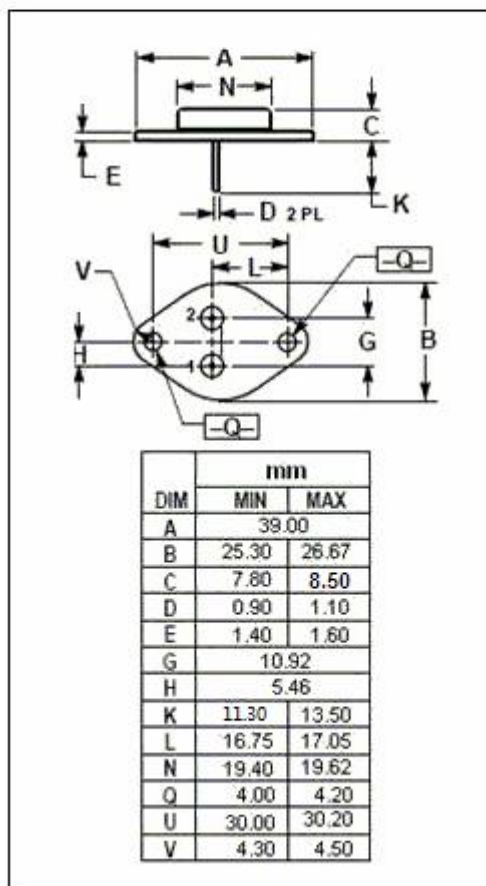
APPLICATIONS

- Designed for medium-speed switching and amplifier applications.



ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Base Voltage	-80	V
V _{CEO}	Collector-Emitter Voltage	-80	V
V _{EBO}	Emitter-Base Voltage	-7	V
I _c	Collector Current-Continuous	-10	A
P _c	Collector Power Dissipation@T _c =25°C	150	W
T _J	Junction Temperature	-65~200	°C
T _{stg}	Storage Temperature	-65~200	°C



THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	1.17	°C/W

isc Silicon PNP Power Transistor**2N3790****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CE0(SUS)}$ *	Collector-Emitter Sustaining Voltage	$I_C=-200\text{mA}; I_B=0$	-80		V
I_{EBO}	Emitter Cutoff Current	$V_{EB}=-7\text{V}; I_C=0$		-5	mA
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=-4\text{A}; I_B=-0.4\text{A}$		-1.0	V
$V_{BE(ON)-1}$	Base-Emitter On Voltage	$I_C=-5\text{A}; V_{CE}=-2\text{V}$		-2.0	V
$V_{BE(ON)-2}$	Base-Emitter On Voltage	$I_C=-10\text{A}; V_{CE}=-4\text{V}$		-4.0	V
h_{FE-1}	DC Current Gain	$I_C=-1\text{A}; V_{CE}=-2\text{V}$	25	90	
h_{FE-2}	DC Current Gain	$I_C=-3\text{A}; V_{CE}=-2\text{V}$	15		
f_T	Current Gain-Bandwidth Product	$I_C=-0.5\text{A}; V_{CE}=-10\text{V}; f=1.0\text{MHz}$	4		MHz

*:Pulse test:Pulse width=300us,duty cycle \leq 2%