

Product Specification

Silicon NPN Power Transistor

2SC3720

DESCRIPTION

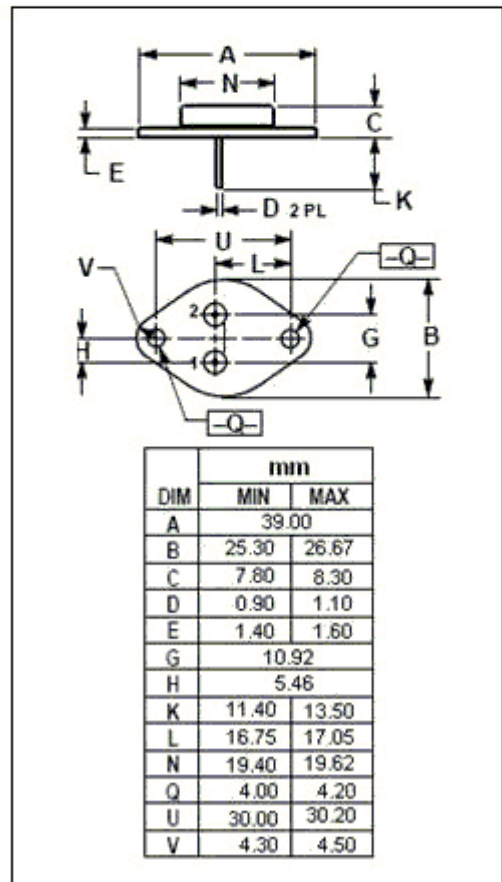
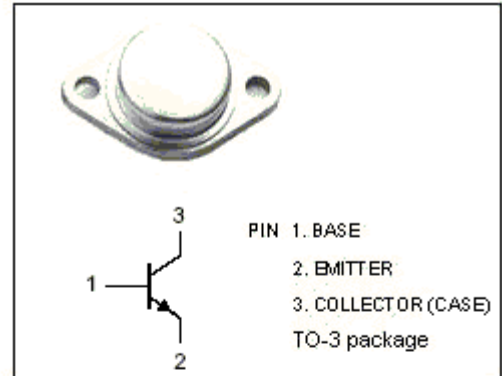
- High Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 800V$ (Min)
- High Switching Speed
- Wide Area of Safe Operation

APPLICATIONS

- Designed for high speed switching and horizontal deflection output applications.

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

SYMBOL	PARAMETER	MAX	UNIT
V_{CBO}	Collector-Base Voltage	1200	V
V_{CEO}	Collector-Emitter Voltage	800	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	10	A
I_{CM}	Collector Current-Peak	15	A
I_B	Base Current-Continuous	5	A
P_C	Collector Power Dissipation @ $T_C=25^\circ C$	200	W
T_j	Junction Temperature	175	$^\circ C$
T_{stg}	Storage Temperature Range	-65~175	$^\circ C$



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C= 10\text{mA}; I_B= 0$	800			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C= 4\text{A}; I_B= 0.8\text{A}$			1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C= 4\text{A}; I_B= 0.8\text{A}$			2.0	V
h_{FE}	DC Current Gain	$I_C= 4\text{A}; V_{CE}= 5\text{V}$	6		20	
I_{CBO}	Collector Cutoff Current	$V_{CB}= 1000\text{V}; I_E= 0$			0.1	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}= 6\text{V}; I_C= 0$			0.1	mA

Switching Times

t_{on}	Turn-On Time	$I_C= 4\text{A}; I_{B1}= 0.8\text{A}; I_{B2}= -1.6\text{A}; V_{CC}= 250\text{V}$			1.0	μs
t_{stg}	Storage Time				3.5	μs
t_f	Fall Time				0.3	μs