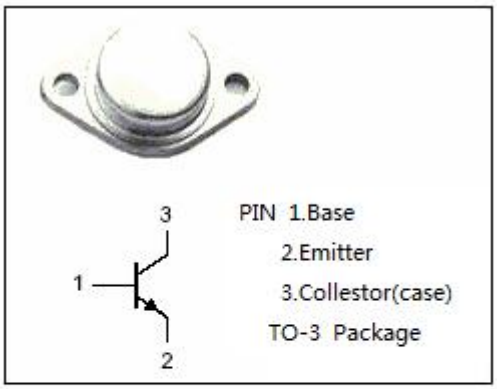
isc Silicon NPN Power Transistor 2N6653

DESCRIPTION

- High Voltage Capability
- High Current Current Capability
- Low Collector Saturation Voltage-
- High Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

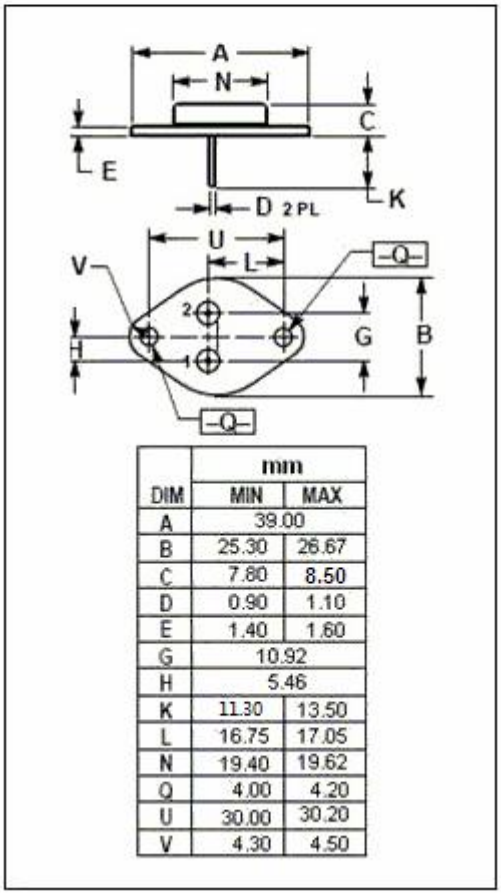


APPLICATIONS

- Desinged for use in switching and linear applications in military and power conversion.

Absolute maximum ratings(Ta=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	350	V
V_{CEO}	Collector-Emitter Voltage	300	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	20	A
I_{CM}	Collector Current-Peak	30	A
I_B	Base Current-Continuous	10	A
P_C	Collector Power Dissipation @T_C=25℃	150	W
T_j	Junction Temperature	-65~175	℃
T_{stg}	Storage Temperature Range	-65~200	℃



DIM	mm MIN	MAX
A	39.00	
B	25.30	26.67
C	7.80	8.50
D	0.90	1.10
E	1.40	1.60
G	10.92	
H	5.46	
K	11.30	13.50
L	16.75	17.05
N	19.40	19.62
Q	4.00	4.20
U	30.00	30.20
V	4.30	4.50

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	1.0	℃/W

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 50mA; I_B= 0	300			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C= 1mA; I_E= 0	350			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 1mA; I_C= 0	7			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 15A; I_B= 3A			0.6	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 15A ;I_B= 3A			1.3	V
I_{CEO}	Collector Cutoff Current	V_{CE}= 300V; I_B= 0			1.0	mA
I_{CBO}	Collector Cutoff Current	V_{CB}= 350V; I_E= 0			0.5	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 7V; I_C= 0			50	uA
h_{FE-1}	DC Current Gain	I_C= 15A ; V_{CE}= 5V	10			
h_{FE-2}	DC Current Gain	I_C= 15A ; V_{CE}= 2V	10			
f_T	Current-Gain—Bandwidth Product	I_C= 1A; V_{CE}= 10V, f_{test}= 10MHz		25		MHz
C_{OB}	Output Capacitance	I_E= 0; V_{CB}= 10V; f_{test}= 1.0MHz		300		pF
Switching Times						
t_d	Delay Time	I_C= 15A, I_{B1}= -I_{B2}= 3A V_{CC}= 200V			0.05	μs
T_r	Rise Time				0.2	μs
t_{stg}	Storage Time				1.5	μs
t_f	Fall Time				0.35	μs

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