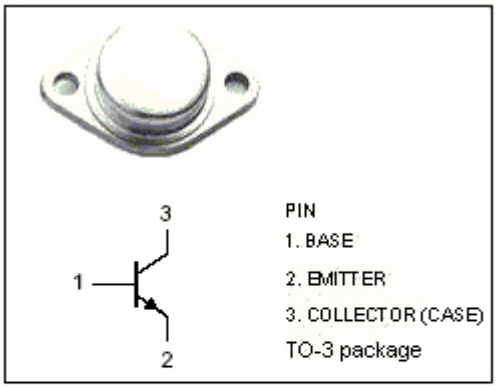
isc Silicon NPN Power Transistor 2N5240

DESCRIPTION

- High Voltage-
  : $V_{CEO(SUS)}$= 300V(Min)
- Wide Area of Safe Operation



APPLICATIONS

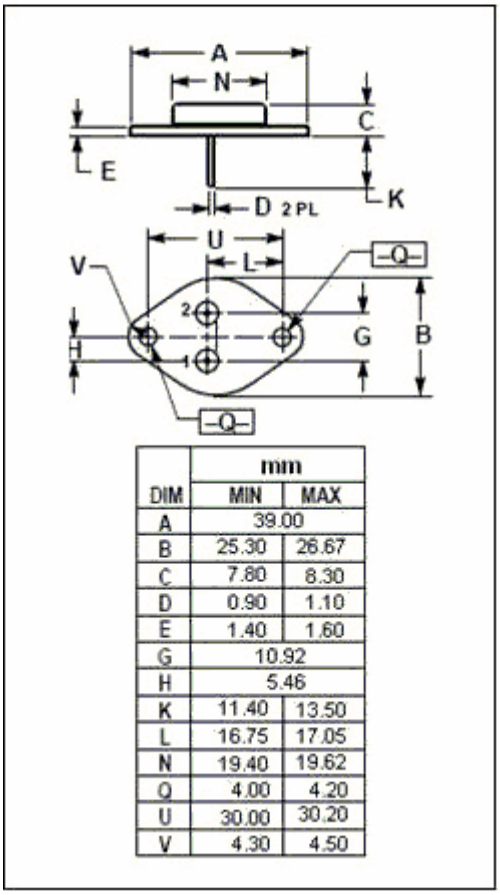
- Designed for use in series regulators, power amplifiers, inverters, deflection circuits, switching regulators, and high-voltage bridge amplifiers.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	375	V
$V_{CER(SUS)}$	Collector-Emitter Voltage R_{BE}≤50Ω	350	V
$V_{CEO(SUS)}$	Collector-Emitter Voltage	300	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	5	A
I_B	Base Current	2	A
P_C	Collector Power Dissipation @ T_C=25℃	100	W
T_J	Junction Temperature	200	℃
T_{stg}	Storage Temperature Range	-65~200	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	1.75	℃/W



DIM	mm MIN	MAX
A	39.00	
B	25.30	26.67
C	7.80	8.30
D	0.90	1.10
E	1.40	1.60
G	10.92	
H	5.46	
K	11.40	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

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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= 0.2A ;I_B= 0	300			V
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 0.2A ;R_{BE}≤ 50Ω	350			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 0.02A; I_C= 0	6			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= 2A; I_B= 0.25A			2.5	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= 4.5A; I_B= 1.125A			5.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= 2A ; V_{CE}= 10V			3.0	V
I_{CEV}	Collector Cutoff Current	V_{CE}=375V; V_{BE}= -1.5V V_{CE}=300V; V_{BE}= -1.5V;T_C= 150℃			2 3	mA
I_{CEO}	Collector Cutoff Current	V_{CE}= 200V; I_B= 0			2	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 6V; I_C=0			5	mA
h_{FE-1}	DC Current Gain	I_C= 0.4A; V_{CE}= 10V	20		80	
h_{FE-2}	DC Current Gain	I_C= 2A; V_{CE}= 10V	20		80	
h_{FE-3}	DC Current Gain	I_C= 4.5A; V_{CE}= 10V	5			
f_T	Current-Gain—Bandwidth Product	I_C= 0.2A; V_{CE}= 10V	2			MHz
C_{OB}	Output Capacitance	I_E= 0; V_{CB}= 10V; f_{test}= 1.0MHz			250	pF