

isc Silicon NPN Power Transistor

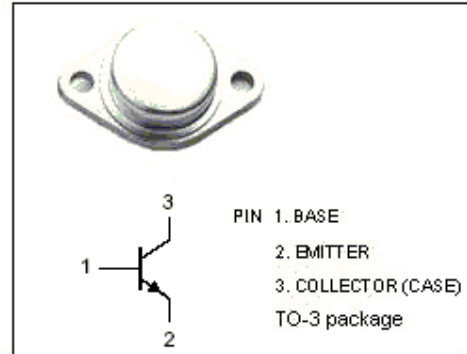
2SC2414

DESCRIPTION

- High Switching Speed
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 400V$ (Min)

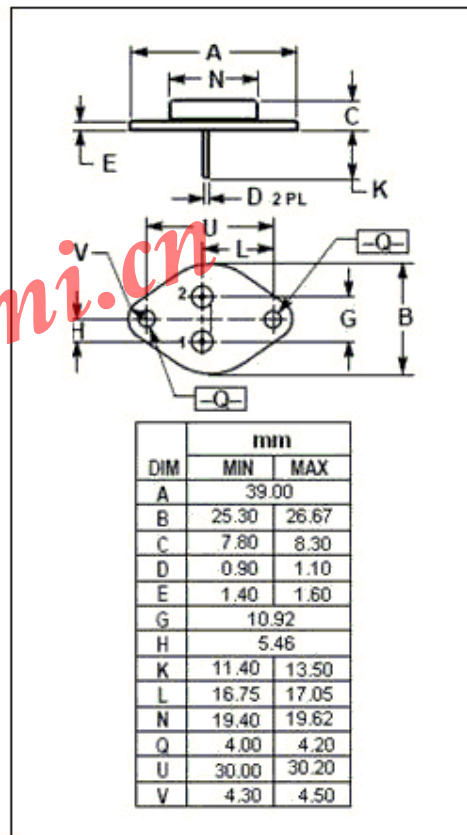
APPLICATIONS

- Designed for high speed power switching applications.



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

SYMBOL	PARAMETER	MAX	UNIT
V_{CBO}	Collector-Base Voltage	500	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	7	V
I_c	Collector Current-Continuous	2	A
I_{CM}	Collector Current-Peak	4	A
P_C	Collector Power Dissipation @ $T_c=25^{\circ}C$	70	W
T_j	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature Range	-65~150	$^{\circ}C$



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C = 0.2A ; L = 25mH$	400			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 1A ; I_B = 0.2A$			1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 1A ; I_B = 0.2A$			1.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = 500V ; I_E = 0$			0.1	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = 5V ; I_C = 0$			0.1	mA
h_{FE-1}	DC Current Gain	$I_C = 0.1A ; V_{CE} = 5V$	15			
h_{FE-2}	DC Current Gain	$I_C = 1A ; V_{CE} = 5V$	8			
f_T	Current-Gain—Bandwidth Product	$I_C = 0.2A ; V_{CE} = 10V$		11		MHz

Switching Times , Resistive Load

t_{on}	Turn-On Time	$I_C = 1A ; I_{B1} = -I_{B2} = 0.2A$			1	μs
t_{stg}	Storage Time				3	μs
t_f	Fall Time				1	μs