

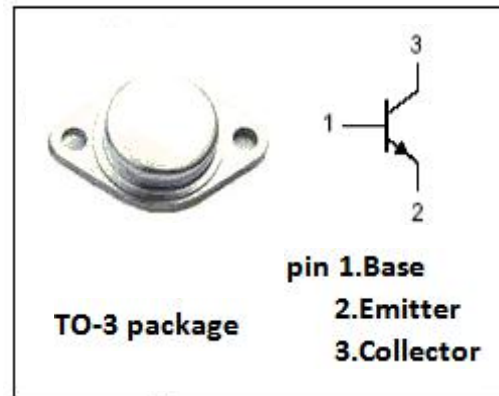
isc Silicon NPN Power Transistors
BUS14/A
DESCRIPTION

High Switching Speed

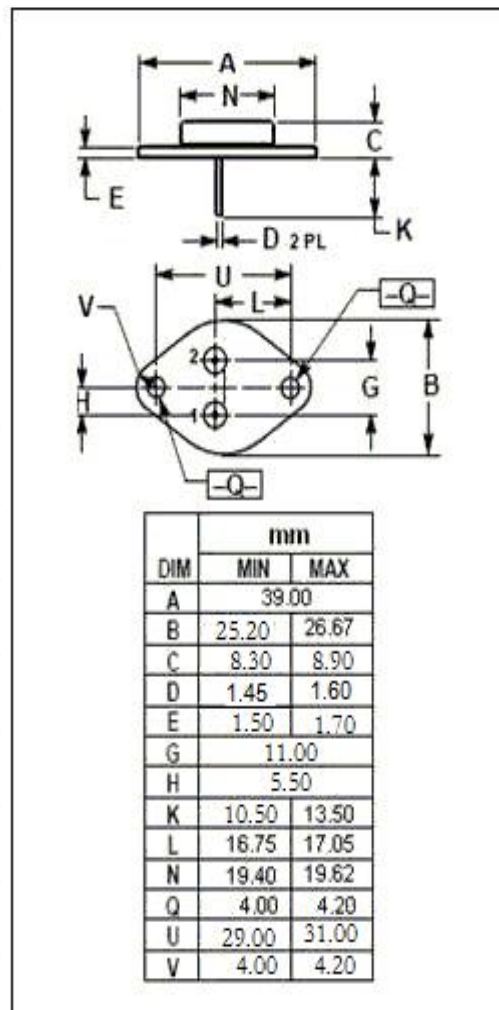
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 400V$ (Min)-BUS14
450V (Min)-BUS14A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for use in converters, inverters, switching regulators, motor control systems etc.


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

SYMBOL	PARAMETER	MAX	UNIT	
V_{CES}	Collector- Emitter Voltage($V_{BE} = 0$)	BUS14	850	V
		BUS14A	1000	
V_{CEO}	Collector-Emitter Voltage	BUS14	400	V
		BUS14A	450	
V_{EBO}	Emitter-Base Voltage	9	V	
I_C	Collector Current-Continuous	30	A	
I_{CM}	Collector Current-Peak $t_p < 2ms$	50	A	
I_B	Base Current-Continuous	6	A	
I_{BM}	Base Current-Peak $t_p < 2ms$	10	A	
P_C	Collector Power Dissipation @ $T_c=25^\circ C$	250	W	
T_j	Junction Temperature	200	$^\circ C$	
T_{stg}	Storage Temperature Range	-65~200	$^\circ C$	



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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.7	°C/W

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	BUS14	400			V
		BUS14A				
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	BUS14			1.5	V
		BUS14A			1.5	
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	BUS14			1.7	V
		BUS14A			1.7	
I_{CES}	Collector Cutoff Current	$V_{CE}=V_{CESMmax}; V_{BE}=0$ $V_{CE}=V_{CESMmax}; V_{BE}=0; T_J=125^\circ\text{C}$			1 5	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=9\text{V}; I_C=0$			10	mA
h_{FE}	DC Current Gain	$I_C=2\text{A}; V_{CE}=5\text{V}$	15		50	

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