

isc Silicon NPN Power Transistors
BUS23/A
DESCRIPTION

High Switching Speed

- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 300V$ (Min)-BUS23
350V (Min)-BUS23A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

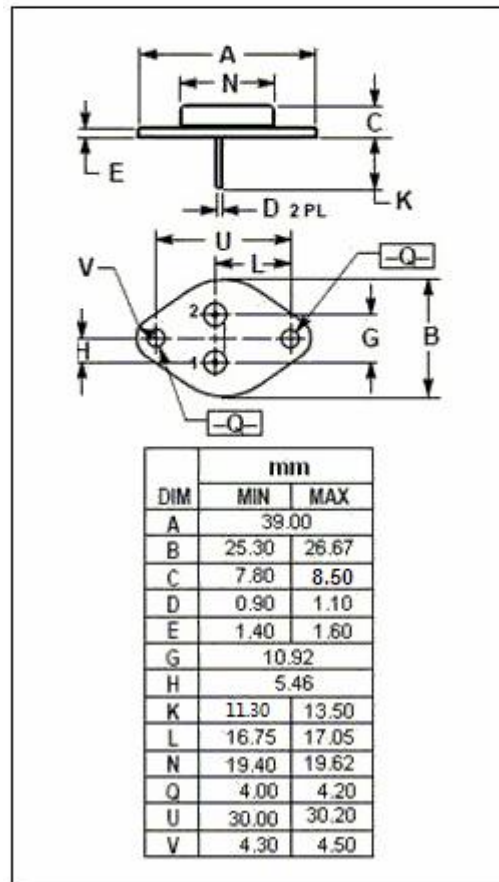
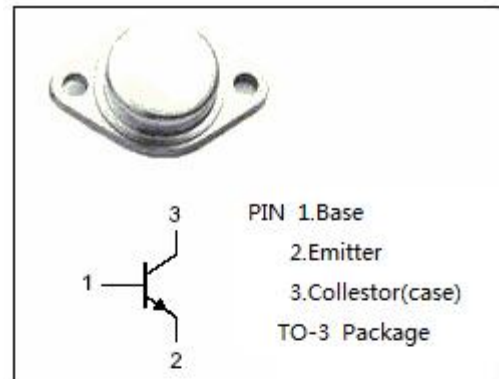
- Designed for use in converters, inverters, switching regulators, motor control systems etc.

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

SYMBOL	PARAMETER	MAX	UNIT	
V_{CES}	Collector- Emitter Voltage($V_{BE} = 0$)	BUS23	550	V
		BUS23A	650	
V_{CEO}	Collector-Emitter Voltage	BUS23	300	V
		BUS23A	350	
V_{EBO}	Emitter-Base Voltage	9	V	
I_C	Collector Current-Continuous	15	A	
I_{CM}	Collector Current-Peak	30	A	
I_B	Base Current-Continuous	6	A	
I_{BM}	Base Current-Peak	9	A	
P_C	Collector Power Dissipation @ $T_C=25^\circ C$	175	W	
T_j	Junction Temperature	200	$^\circ C$	
T_{stg}	Storage Temperature Range	-65~200	$^\circ C$	

THERMAL CHARACTERISTICS

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



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ELECTRICAL CHARACTERISTICS

 T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT	
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	BUS23	I _C = 50mA ; I _B = 0	300			V
		BUS23A		350			
V _{CE(sat)}	Collector-Emitter Saturation Voltage	BUS23	I _C = 10A; I _B = 1.33A			1.5	V
		BUS23A	I _C = 10A; I _B = 1.67A			1.5	
V _{BE(sat)}	Base-Emitter Saturation Voltage	BUS23	I _C = 10A; I _B = 1.33A			1.6	V
		BUS23A	I _C = 10A; I _B = 1.67A			1.6	
I _{CES}	Collector Cutoff Current	V _{CE} =V _{CESMmax} ; V _{BE} = 0			1	mA	
I _{EBO}	Emitter Cutoff Current	V _{EB} = 9V; I _C = 0			10	mA	
h _{FE}	DC Current Gain	I _C = 1.5A ; V _{CE} = 5V		25			

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