

isc Silicon NPN Power Transistor

2SC2964

DESCRIPTION

- Excellent Safe Operating Area
- Low Collector-Emitter Saturation Voltage
- Minimum Lot-to-Lot variations for robust device Performance and reliable operation.

APPLICATIONS

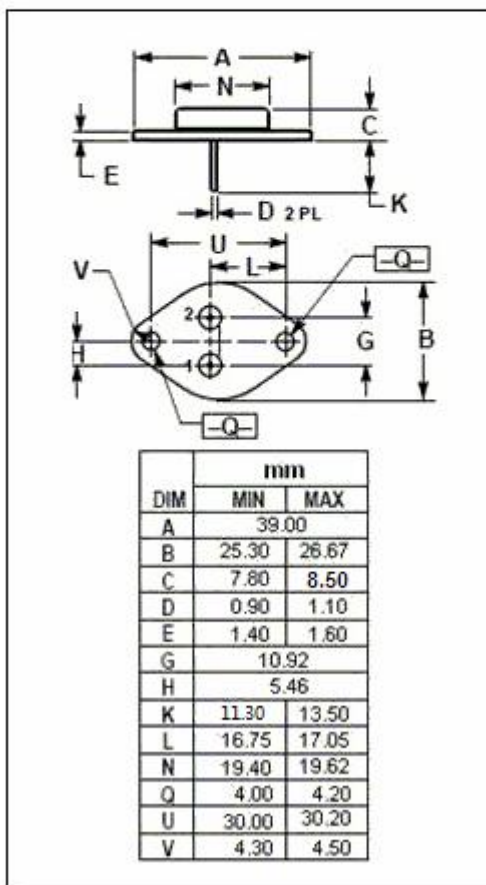
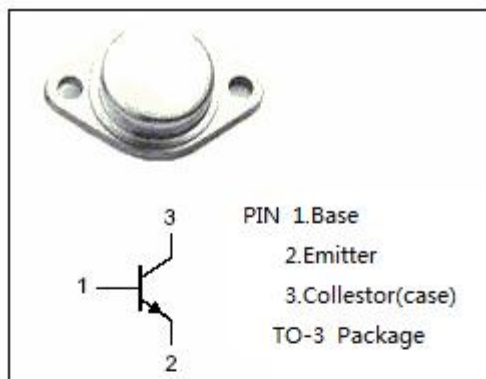
- Switching regulator
- Motor controls
- Deflections circuits

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	600	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	15	A
I_B	Base Current	5	A
P_C	Collector Power Dissipation@ $T_c=25^{\circ}\text{C}$	150	W
T_J, T_{stg}	Operating and Storage Junction Temperature Range	-65~+175	$^{\circ}\text{C}$

THERMAL CHARACTERISTICS

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



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=30\text{mA}$; $I_B=0$	400		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=10\text{A}$; $I_B=2\text{A}$		1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=10\text{A}$; $I_B=2\text{A}$		1.5	V
I_{CEO}	Collector Cutoff Current	$V_{CE}=400\text{V}$; $I_B=0$		0.1	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=7\text{V}$; $I_C=0$		0.1	mA
h_{FE}	DC Current Gain	$I_C=10\text{A}$; $V_{CE}=6\text{V}$	7	20	

Switching Times

t_{on}	Turn-On Time	$I_C=10\text{A}$; $I_{B1}=2\text{A}$; $I_{B2}=-2.0\text{A}$;			0.5	μs
t_{stg}	Storage Time				1.0	μs
t_f	Fall Time				0.3	μs

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