

isc Silicon NPN Power Transistors
BUY69A BUY69B BUY69C
DESCRIPTION

- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 400V(\text{Min})$ - BUY69A ;
325V(Min)- BUY69B;
200V(Min)- BUY69C
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

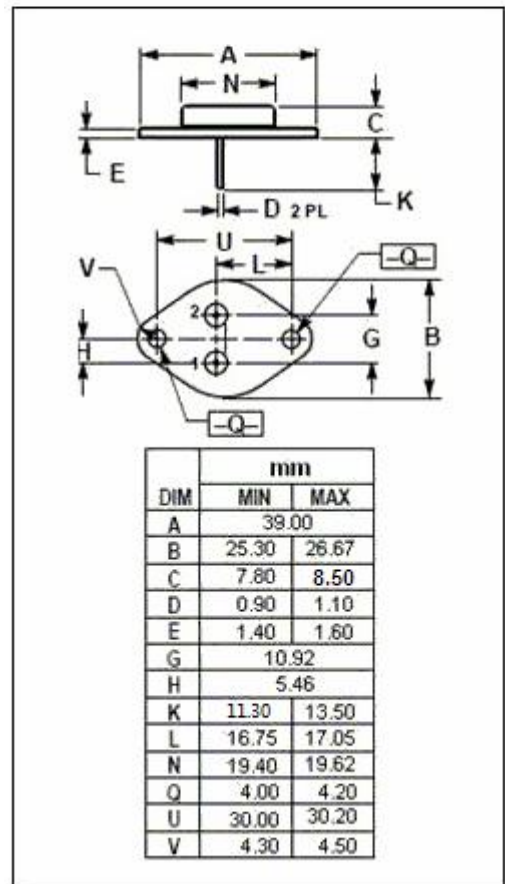
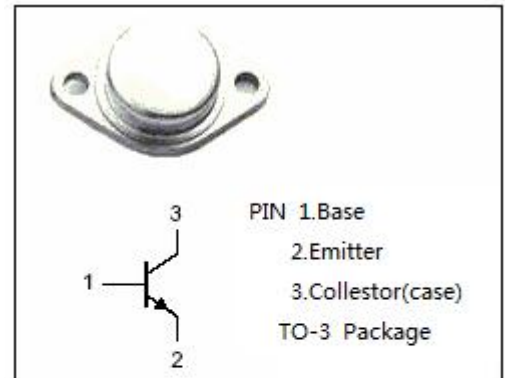
- Designed for horizontal deflection output stage of CTV receivers and high voltage, fast switching and industrial application.

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

SYMBOL	PARAMETER	VALUE	UNIT	
V_{CES}	Collector-Emitter Voltage($V_{BE}=0$)	BUY69A	1000	V
		BUY69B	800	
		BUY69C	500	
V_{CEO}	Collector-Emitter Voltage	BUY69A	400	V
		BUY69B	325	
		BUY69C	200	
V_{EBO}	Emitter-Base Voltage	8	V	
I_C	Collector Current-Continuous	10	A	
I_{CM}	Collector Current-peak	15	A	
I_B	Base Current-Continuous	3.0	A	
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	100	W	
T_j	Junction Temperature	200	$^\circ\text{C}$	
T_{stg}	Storage Temperature Range	-65~200	$^\circ\text{C}$	

THERMAL CHARACTERISTICS

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



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ELECTRICAL CHARACTERISTICS

 T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	BUY69A	400		V
		BUY69B	325		
		BUY69C	200		
V _{CBO}	Collector-Base Voltage	BUY69A	1000		V
		BUY69B	800		
		BUY69C	500		
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _c = 8A ; I _B = 2.5A		3.3	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _c = 8A ; I _B = 2.5A		2.2	V
I _{CBO}	Collector Cutoff Current	V _{CB} =V _{CBO} ; I _E = 0		1.0	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 8V; I _C = 0		1.0	mA
h _{FE}	DC Current Gain	I _c = 2.5A ; V _{CE} = 10V	15		
f _T	Current-Gain—Bandwidth Product	I _c = 0.5A ; V _{CE} = 10V; f _{test} = 1MHz	10		MHz

Switching Times

t _r	Rise Time	I _c =5A ; I _{B1} =-I _{B2} =1A; V _{CC} =250V		0.3	μ s
t _s	Storage Time			1.8	μ s
t _f	Fall Time			1.0	μ s

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