

Silicon NPN Power Transistors

BUY69A

DESCRIPTION

- Collector-Base Breakdown Voltage-
 $V_{(BR)CBO} = 800V(\text{Min.})$
- High Speed Switching

APPLICATIONS

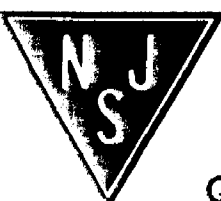
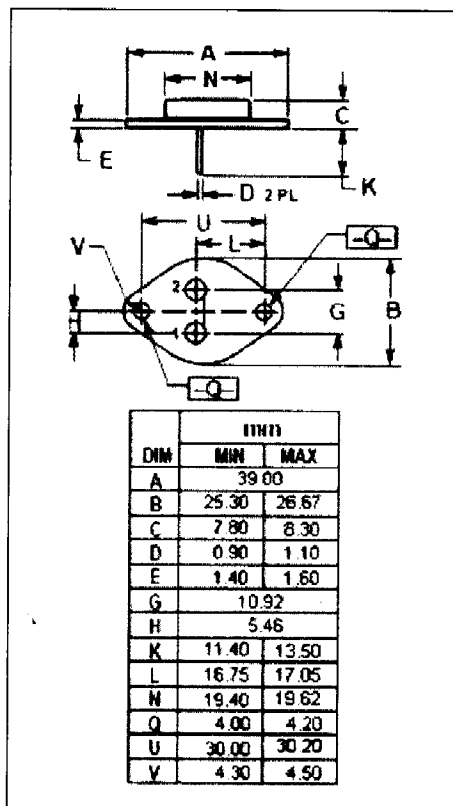
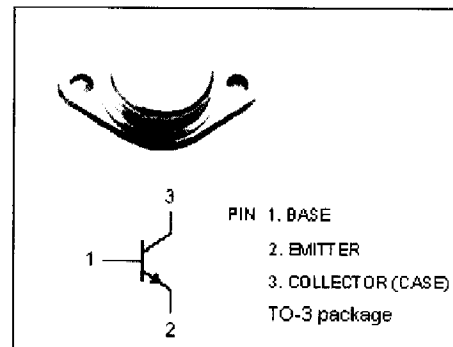
- Designed for horizontal deflection output stage of CTV receivers and high voltage, fast switching and industrial application.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Emitter Voltage	800	V
V_{CEO}	Collector-Emitter Voltage	400	V
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	$^\circ\text{C/W}$



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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	$I_C=100\text{mA}; I_B=0$	400		V
V_{CBO}	Collector-Base Voltage	$I_C=1\text{mA}; I_E=0$	800		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=8\text{A}; I_B=2.5\text{A}$		3.3	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=8\text{A}; I_B=2.5\text{A}$		2.2	V
I_{CES}	Collector Cutoff Current	$V_{CE}=\text{rated } V_{CES}; V_{BE}=0$		1.0	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=8\text{V}; I_C=0$		1.0	mA
h_{FE}	DC Current Gain	$I_C=2.5\text{A}; V_{CE}=10\text{V}$	15		
f_T	Current-Gain—Bandwidth Product	$I_C=0.5\text{A}; V_{CE}=10\text{V}; f_{\text{test}}=1\text{MHz}$	10		MHz

Switching Times

t_r	Rise Time	$I_C=5\text{A}; I_{B1}=-I_{B2}=1\text{A}; V_{CC}=250\text{V}$		0.3	μs
t_s	Storage Time			1.8	μs
t_f	Fall Time			1.0	μs