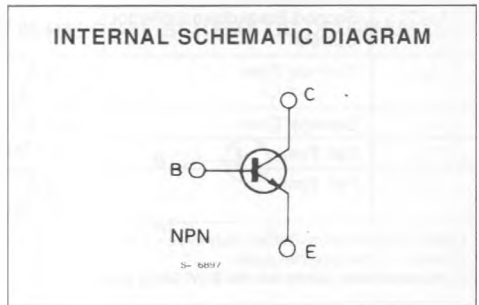
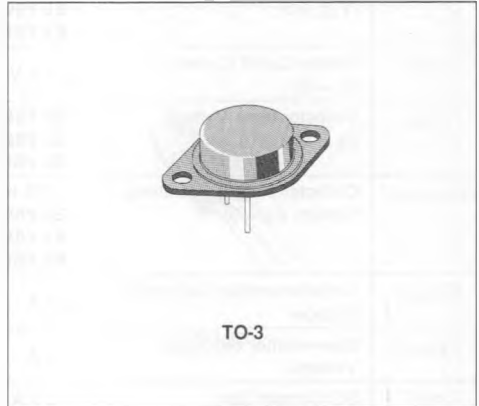


MULTIEPITAXIAL MESA NPN
DESCRIPTION

The BUY69A, BUY69B, and BUY69C are silicon multiepitaxial mesa NPN transistors in Jedec TO-3 metal case. They are intended for horizontal deflection output stage of CTV receivers and high voltage, fast switching and industrial applications.


ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value			Unit
		BUY69A	BUY69B	BUY69C	
V_{CES}	Collector-emitter Voltage ($V_{BE} = 0$)	1000	800	500	V
V_{CEO}	Collector-emitter Voltage ($I_B = 0$)	400	325	200	V
V_{EBO}	Emitter-base Voltage ($I_C = 0$)	8			V
I_C	Collector Current	10			A
I_{CM}	Collector Peak Current ($t_p \leq 10$ ms)	15			A
I_B	Base Current	3			A
P_{tot}	Total Power Dissipation at $T_{case} \leq 25$ °C	100			W
T_{stg}	Storage Temperature	- 65 to 200			°C
T_j	Junction Temperature	200			°C

THERMAL DATA

$R_{th(j-case)}$	Thermal Resistance Junction-case	Max	1.75	C/W
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ELECTRICAL CHARACTERISTICS ($T_{case} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I_{CES}	Collector Cutoff Current ($V_{BE} = 0$)	for BUY69A $V_{CE} = 1000\text{ V}$ for BUY69B $V_{CE} = 800\text{ V}$ for BUY69C $V_{CE} = 500\text{ V}$			1 1 1	mA mA mA
I_{EBO}	Emitter Cutoff Current ($I_C = 0$)	$V_{EB} = 8\text{ V}$			1	mA
V_{CBO}	Collector-base Voltage ($I_E = 0$)	for BUY69A $I_C = 1\text{ mA}$ for BUY69B $I_C = 1\text{ mA}$ for BUY69C $I_C = 1\text{ mA}$	1000 800 500			V V V
$V_{CEO(sus)}^*$	Collector-emitter Sustaining Voltage ($I_B = 0$)	$I_C = 100\text{ mA}$ for BUY69A for BUY69B for BUY69C	400 325 200			V V 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
h_{FE}^*	DC Current Gain	$I_C = 2.5\text{ A}$ $V_{CE} = 10\text{ V}$	15			
f_T	Transition Frequency	$I_C = 0.5\text{ A}$ $V_{CE} = 10\text{ V}$		10		MHz
$I_{S/b}^{**}$	Second Breakdown Collector Current	$V_{CE} = 25\text{ V}$	4			A
t_{on}	Turn-on Time	$I_C = 5\text{ A}$ $V_{CE} = 250\text{ V}$ $I_{B1} = 1\text{ A}$		0.2		μs
t_s	Storage Time	$I_C = 5\text{ A}$ $V_{CE} = 250\text{ V}$ $I_{B1} = -I_{B2} = 1\text{ A}$		1.7		μs
t_f	Fall Time			0.3		μs
t_f	Fall Time	$I_C = 8\text{ A}$ $V_{CE} = 40\text{ V}$ $I_{B1} = -I_{B2} = 2.5\text{ A}$			1	μs

* Pulsed : pulse duration = 300 μs , duty cycle = 1.5 %.

** Pulsed : 1 s, non repetitive pulse.

For characteristics curves see the BUW 34/5/6 series.