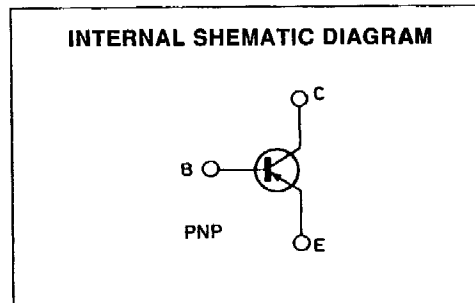
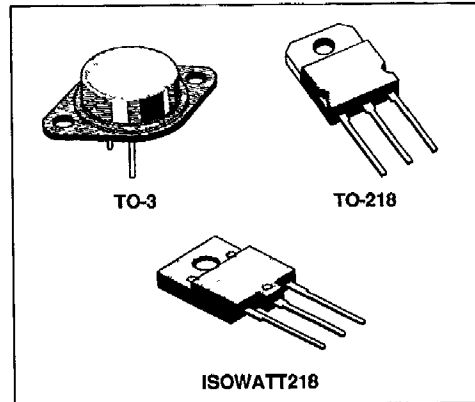


BUW32/32P/32PFI
BUW32A/32AP/32APFI

HIGH VOLTAGE POWER SWITCH

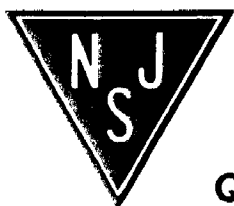
DESCRIPTION

The BUW32/A, BUW32P/AP and BUW32PFI/APFI are silicon multi-epitaxial mesa PNP transistors mounted respectively in TO-3 metal case, TO-218 plastic package and ISOWATT218 fully isolated package. They are intended for high voltage, fast switching and industrial applications.



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	BUW			Unit
		32/P/PFI	32A/AP/APFI		
V_{CES}	Collector-emitter Voltage ($V_{BE} = 0$)	- 400	- 450		V
V_{CEO}	Collector-emitter Voltage ($I_B = 0$)	- 350	- 400		V
V_{EBO}	Emitter-base Voltage ($I_C = 0$)	- 5	- 7		V
I_C	Collector Current	- 10			A
I_B	Base Current	- 5			A
		TO-3	TO-218	ISOWATT218	
P_{tot}	Total Power Dissipation at $T_c < 25^\circ\text{C}$	125	105	55	W
T_{stg}	Storage Temperature	- 65 to 175	- 65 to 150	- 65 to 150	$^\circ\text{C}$
T_j	Max. Operating Junction Temperature	175	150	150	$^\circ\text{C}$



NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

Quality Semi-Conductors

THERMAL DATA

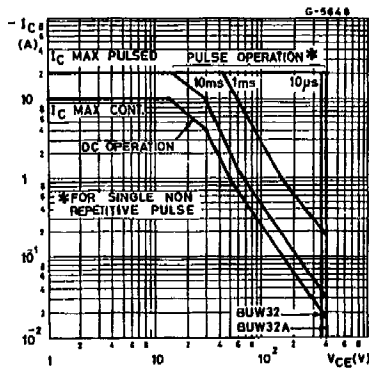
		TO-3	TO-218	ISOWATT218	
$R_{th\ j-case}$	Thermal Resistance Junction-case	max	1.19	1.19	2.27 °C/W

ELECTRICAL CHARACTERISTICS ($T_{case} = 25\text{ °C}$ unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I_{CES}	Collector Cutoff Current ($V_{BE} = 0$)	$V_{CE} = \text{Rated } V_{CES}$			-1	mA
		$V_{CE} = \text{Rated } V_{CES}$ $T_{case} = 125\text{ °C}$			-5	mA
I_{EBO}	Emitter Cutoff Current ($I_C = 0$)	$V_{EB} = \text{Rated } V_{EBO}$			-1	mA
$V_{CE(sus)}^*$	Collector-emitter Sustaining Voltage ($I_B = 0$)	$I_C = -100\text{ mA}$ for BUW32/P/PFI for BUW32A/AP/APFI	-350 -400			V V
$V_{CE(sat)}^*$	Collector-emitter Saturation Voltage	$I_C = -5\text{ A}$ $I_B = -1.5\text{ A}$			-1.5	V
$V_{BE(sat)}^*$	Base-emitter Saturation Voltage	$I_C = -5\text{ A}$ $I_B = -1.5\text{ A}$			-1.6	V
h_{FE}^*	DC Current Gain	$I_C = -1\text{ A}$ $V_{CE} = -5\text{ V}$	12			
$I_{s/b}$	Second Breakdown Collector Current	$V_{CE} = -30\text{ V}$ for BUW32/A for BUW32P/AP for BUW32PFI/APFI	-4.2 -3.5 -1.7			A A A
t_{on}	Turn-on Time	Resistive Load $V_{CC} = -250\text{ V}$ $I_C = -5\text{ A}$ $I_{B1} = -I_{B2} = -1\text{ A}$		0.3	0.6	μs
t_s	Storage Time			0.7	1.5	μs
t_f	Fall Time			0.25	0.6	μs

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

Safe Operating Areas.



Safe Operating Areas.

