

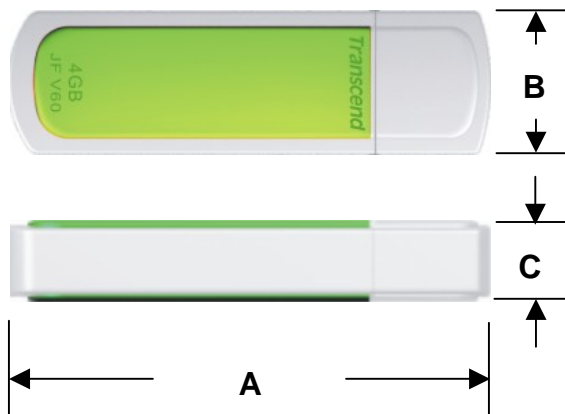
# TS4GJFV60

4GB USB2.0 JetFlash™

## Description

TS4GJFV60 is a 4GB USB Flash Drive with 1 pcs of 4Gx8 Flash (or 2 pcs of 2Gx8) Memory assembled on a printed circuit board.

## Outline



## Features

- Color: Green
- USB 2.0 compatible, true Plug and Play
- Powered directly via the USB port. No external power or battery needed
- LED indicates the usage status of JetFlashV60
- JetFlash™ elite software pack includes (For Windows Me/2K/XP/Vista only):
  - Favorites Function: store all your favorite website addresses on the JetFlash™
  - AutoLogin Function: automatically login to websites where you have a password
  - Secret-Zip Function: compress and/or password protect saved files using AES encryption
  - PC-Lock Function: makes JetFlash™ a key to your computer
  - E-Mail Function: use your JetFlash™ to securely send, receive and save e-mails
  - DataBackup Function: backup, restore and synchronize your data

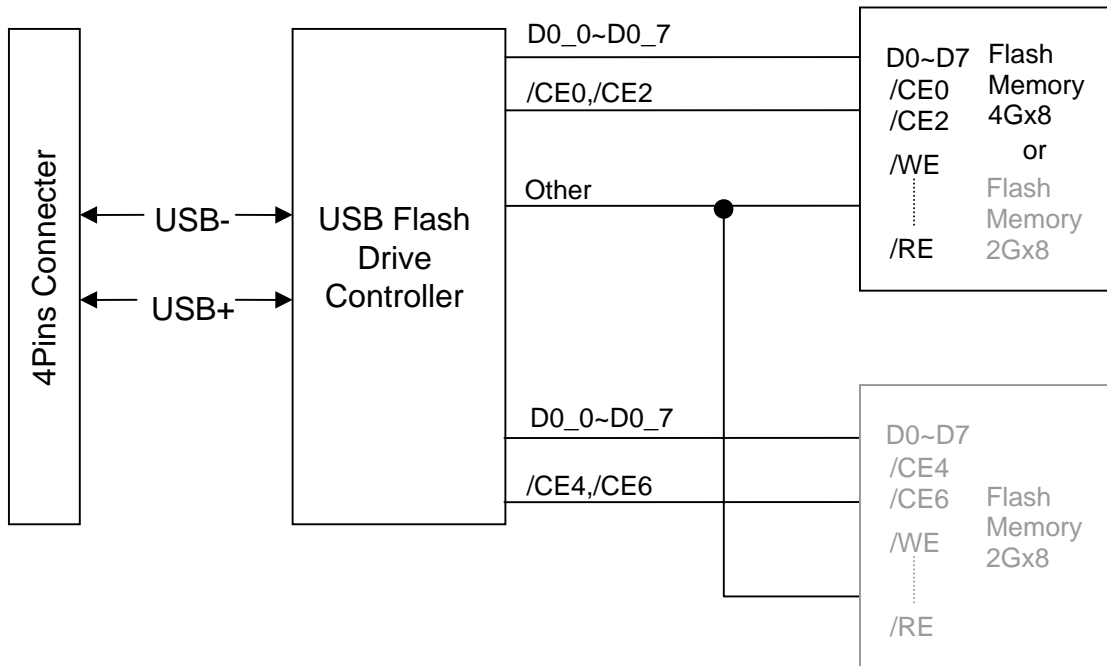
## System Requirement

- Hardware: Desktop or notebook computer with USB port
- Operating System: Windows® 98SE, Windows® Me, Windows® 2000, Windows® XP, Windows® Vista and Mac™ OS 9.0 or later, Linux™ Kernel 2.4.2 or later

## Dimensions

Side	Millimeters	Inches
A	61 ± 1.00	2.40 ± 0.04
B	18.6 ± 1.00	0.73 ± 0.04
C	9.8 ± 1.00	0.39 ± 0.04

## Block Diagram



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## Pinouts

Pin No.	Pin Name
01	VCC
02	USB-
03	USB+
04	VSS

## Pin Identification

Symbol	Function
USB-	USB differential signal:
USB+	The pairs are used to transmit Data/Address/Command
VSS	Ground
VCC	USB power input

## Specifications

Storage Capacity	4GB
Data Retention	10 years
Erase Cycles	>10,000 times
Connector Durability	10,000 times
System Performance	Read: 10MB/sec (max.), Write: 3MB/sec (max.)
Power Supply	DC 5V±10% via the USB port
Temperature Range	Operation: 0-70°C, Non-Operating: -40°C-85°C
Weight	10g
Certificates	CE, FCC, BSMI

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## Absolute Maximum Ratings

Symbol	Parameter	Rating	Unit
V <sub>CC</sub>	Power Supply	4.5 to 5.5	V
V <sub>IN</sub>	Input Voltage	-0.3 to 3.6	V
V <sub>CC18</sub>	Internal Power Supply	-0.3 to 2.0	V

## DC Characteristics: T<sub>OPR</sub>=0°C~70°C ; V<sub>IN</sub>=3.3V ; V<sub>CC18</sub>=1.8V

Symbol	Parameter	Min.	Max.	Units
V <sub>IH</sub> TTL	TTL Input High Voltage	2	V <sub>IN</sub> +0.3	V
V <sub>IL</sub> TTL	TTL Input Low Voltage	-0.3	0.8	V
V <sub>OH</sub> TTL	TTL Output High Voltage	0.9V <sub>IN</sub>		V
V <sub>OL</sub> TTL	TTL Output Low Voltage		0.45	V
I <sub>OH</sub> TTL	TTL Output High Current	-4		V
I <sub>OL</sub> TTL	TTL Output Low Current		4	V
V <sub>IH</sub> USB	USB Input High Voltage for Low-/full-speed	2.0		V
V <sub>IL</sub> USB	USB Input Low Voltage for Low-/full-speed		0.8	V
V <sub>I</sub> USB_DIFF	Differential Input Sensitivity for Low-/full-speed	TBD		V
V <sub>I</sub> USB_CM	Differential Common Mode Input Range for Low-/full-speed	0.8	2.5	V
V <sub>I</sub> USB_HSSQ	USB High-speed squelch Input detection threshold	0.1	0.15	V
V <sub>I</sub> USB_HSDSC	USB High-speed disconnect Input detection threshold	0.525	0.625	V
V <sub>I</sub> USB_HSCM	USB High-speed Signaling Common Mode Range	-0.05	0.5	V
V <sub>OH</sub> USB	USB Output High Voltage for Low-/full-speed	2.8	3.6	V
V <sub>OL</sub> USB	USB Output Low Voltage for Low-/full-speed	0	0.3	V
V <sub>OH</sub> USB_HS	USB Output High Voltage for High-speed	0.36	0.44	V
V <sub>OL</sub> USB_HS	USB Output Low Voltage for High-speed	-0.01	0.01	V
I <sub>OH</sub> USB	USB Output High Current for Low-/full-speed	-10		V
I <sub>OL</sub> USB	USB Output Low Current for Low-/full-speed		10	V
I <sub>OH</sub> USB_HS	USB Output High Current for High-speed	40		V
I <sub>OL</sub> USB_HS	USB Output Low Current for High-speed		40	V

## AC Characteristics:

Symbol	Parameter	Min.	Typ.	Max.	Units
TP <sub>ILH</sub>	Input Rising Delay	0.61 (0.8pF)	0.72 (2.4pF)	0.92 (4.8pF)	ns
TP <sub>IHL</sub>	Input Falling Delay	0.88 (0.8pF)	1.03 (2.4pF)	1.24 (4.8pF)	ns
TP <sub>OLH</sub>	Output Rising Delay	2.40 (10pF)	3.42 (30pF)	4.88 C	ns
TP <sub>OHL</sub>	Output Falling Delay	2.61 (10pF)	3.62 (30pF)	5.03 (30pF)	ns
TR	Output Rising Time	2.26 (10pF)	4.45 (30pF)	7.89 (30pF)	ns
TF	Output Falling Time	1.90 (10pF)	3.63 (30pF)	6.23 (30pF)	ns

## Recommended Operating Conditions

Symbol	Parameter	Min.	Typ.	Max.	Units
V <sub>CC</sub>	Power Supply Voltage	4.5	5	5.5	V
V <sub>IN</sub>	Input Voltage	3.0	3.3	3.6	V
V <sub>CC18</sub>	Internal Power Supply	1.62	1.8	1.98	V

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