



### Features

- TOSHIBA BiCS Flash™ (3D-NAND) technology
- Built with DDRIII SDRAM cache
- Support Trim command set
- Support Native Command Queuing (NCQ)
- Support S.M.A.R.T. command set and utility
- Capacities from 128GB up to 512GB

### Specification

■ <b>Compatibility</b>	SATA Revision 3.2 ATA-8 ACS4 command set
■ <b>Declarations</b>	RoHS & REACH compliant
■ <b>Flash technology</b>	3D-NAND flash technology
■ <b>Form-factor</b>	1.8" Slim Lite SATA III SSD JEDEC MO-297A Specification compliance SATA 7-pin (data) + 15-pin (power)
■ <b>Host Interface</b>	
■ <b>Performance</b>	
➤ <b>Data transfer rate</b>	SATA 1.5Gb/s, 3.0Gb/s, 6.0Gb/s
➤ <b>Sequential read</b>	560 MB/sec (Max.)
➤ <b>Sequential write</b>	520 MB/sec (Max.)
➤ <b>4KB random read</b>	73K IOPS (Max.)
➤ <b>4KB random write</b>	65K IOPS (Max.)
■ <b>Environmental</b>	
➤ <b>Operating temp.</b>	STD. 0°C~+70°C/IND. -40°C~+85°C
➤ <b>Non-operating temp.</b>	STD. -20°C~+80°C/IND. -50°C~+95°C
➤ <b>Humidity</b>	10% ~ 95% non-condensing
➤ <b>Vibration</b>	70 Hz to 2K Hz, 20G, 3 axes
➤ <b>Shock</b>	0.5ms, 1500 G, 3 axes
➤ <b>Altitude</b>	70,000 feet

### Power consumption

➤ <b>Power requirement</b>	+5 V ± 5%
➤ <b>Reading mode</b>	419mA (Max.)
➤ <b>Writing mode</b>	543mA (Max.)
➤ <b>Idle mode</b>	181mA (Max.)
■ <b>Reliability</b>	
➤ <b>Wear-leveling</b>	Static wear-leveling algorithms
➤ <b>TBW</b>	Up to 600 TBW at 512GB Capacity (Sequential Write)
➤ <b>Erase counts</b>	Up to 3,000 times
➤ <b>ECC</b>	LDPC (Low Density Parity Check)
■ <b>Physical specification</b>	
➤ <b>Weight (Max.)</b>	15g
➤ <b>Dimension (WxL)</b>	54.00 x 39.00 (mm)
■ <b>Conformal coating</b>	Optional
■ <b>Warranty</b>	2 years or within 3,000 erasing counts

### Part Number List

Capacity	0°C~+70°C	Capacity	-40°C~+85°C
128GB	SB8RJ128G-VECT3-(T)	128GB	WB8RJ128G-VECT3-(T)C
256GB	SB8RJ256G-VECT3-(T)	256GB	WB8RJ256G-VECT3-(T)C
512GB	SB8RJ512G-VECT3-(T)	512GB	WB8RJ512G-VECT3-(T)C

### Part Number Decoder

X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	X11	X12	X13	X14	X15	X16	X17	X18	X19	X20
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#### Example

W	B	8	R	J	5	1	2	G	—	V	E	C	T	3	—	T	C		
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#### X1 Grade

S : Standard grade operating temp. 0°C~+70°C  
W: Wide temp. grade operating temp. -40°C~+85°C

#### X2 The material of casing

B : Bare (without casing)

#### X3 X4 X5 Product category

8RJ : 1.8" Slim Lite SATA III SSD with DRAM cache

#### X6 X7 X8 X9 Capacity

128G : 128GB    512G : 512GB  
256G : 256GB

#### X11 Controller

V : MUSE Series

#### X12 Controller version

A, B, C, D....

#### X13 Controller grade

C : Commercial grade

#### X14 Flash IC brand

T : Toshiba NAND flash IC

#### X15 Flash IC grade

3: BiCS 3D-NAND Flash IC

#### X17 X18 X19 X20 Reserved for specific requirements

Blank : Standard product w/o thermal sensor and conformal-coating  
T : Thermal Sensor (optional)

C : Conformal coating (optional)