Dual staked MIL-STD 1553 Interface Transformers SBIT x 7.5S

- In accordance to MIL-STD 1553 B
- Meet all the electrical requirements of Manchester II serial bi-phase data transmission, 1 MHz operation
- Epoxy molding in accordance with outgassing requirements of ECSS-Q-ST-70-02C
- Applied standards: ESCC 3201 generic specification for space products
- Open-circuit impedance greater than 3 kΩ (4 kΩ typical value) from 75 kHz to 1 MHz
- Frequency range 75 kHz to 1 MHz
- Operating temperature range: –55°C to +125°C
- Weight: < 5 grams

Electrical Data (25°C)

Parameter	Unit	SBIT 1 7.5S	SBIT 2 7.5S	SBIT 3 7.5S	SBIT 4 7.5S	SBIT 5 7.5S	SBIT 6 7.5S	SBIT 7 7.5S	SBIT 8 7.5S
Frequency Response									
Operating Range	kHz	75 to 1000	75 to 1000	75 to 1000	75 to 1000	75 to 1000	75 to 1000	75 to 1000	75 to 1000
Common-Mode Rejection (min)	dB	45	45	45	45	45	45	45	45
Electrical Requirements									
Terminal Winding Resistance Rdc									
• 1-3 / (11-13) (max)	Ω	3.5	3	1.9	1	1	1.2	3.2	1
• 4-8 / (14-18) (max)	Ω	3	3	1.9	3	3	3	3	3
Interwinding Capacitance (max)	pF	70	30	70	45	45	70	70	70
Winding Inductance									
• LM (min)	mH	7.5	7.5	7.5	6.0	6.0	8.0	8.0	6.0
• LL (max)	µH	6.0	6.0	6.0	8.0	6.0	8.0	6.0	7.0
Peak-to-Peak Voltage (max)									
Terminals 1-3 primary	Vpp	60	60	60	38	38	39	60	44
Droop (max)									
3 ms Pulse Duration									
140 Ω Load Across Terminals 4-8	%	10	10	10	10	10	10	10	10
Decay Time (max)									
140 Ω Load Across Terminals 4-8	ns	25	25	25	25	25	25	25	25
Backswing									
140 Ω Load Across Terminals 4-8	%	none	none	none	none	none	none	none	none
Turns Ratios									
Terminals									
• 1-3: 4-8 / 11-13: 14-18		1.4: 1	1: 1	1.20: 1	1: 3.2	1: 2.5	1: 2.5	1.25: 1	1: 2.12
• 1-3: 5-7 / 11-13: 15-13		2: 1	1: 0.707	1.67: 1	1: 2.3	1: 1.79	1: 1.75	1.66: 1	1: 1.5

To Order

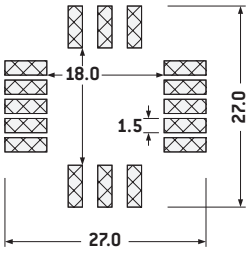
SBIT # 7.5S

SBIT	#	7.5	S
Range	Part 1 to 8	Case height 7.5	**S** SMD

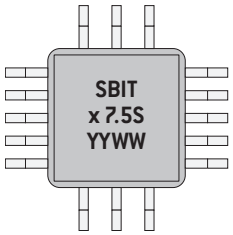
Notes

Interwinding insulation: 500 V_{RMS} - 500 Hz.
Flammability compliance: UL94V0.

PCB Layout (suggested)



Marking



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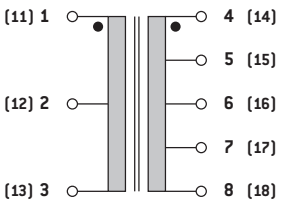
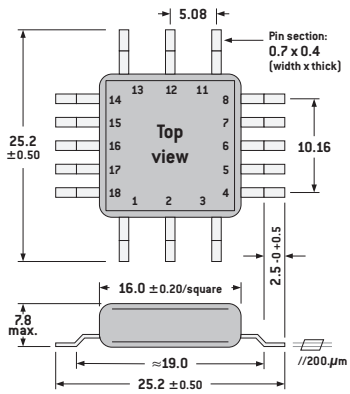
Date code

Connections



Typical Dimensions (mm)



HIGH GRADE PRODUCTS