

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



- In accordance to MIL-STD 1553 B
- Meet all the electrical requirements of ManchesterII 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 : 2.5	1 : 2.5	1 : 3.2	1.25 : 1	1 : 2.12	
• 1-3 : 5-7 / 11-13 : 15-13		2 : 1	1 : 0.707	1.67 : 1	1 : 1.75	1 : 1.79	1 : 2.3	1.66 : 1	1 : 1.5	

To Order

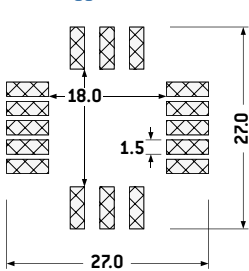
SBIT	#	7.5	S
Range	Part 1 to 8	Case height 7.5	S SMD

SBIT # 7.5S

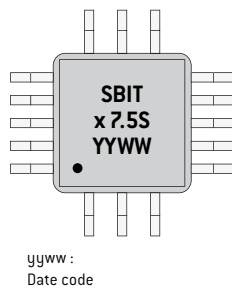
Notes

Interwinding insulation: 500 Vrms - 500 Hz.
Flammability compliance: UL94V0.

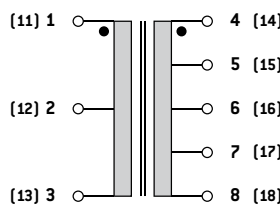
PCB Layout (suggested)



Marking



Connections



Typical Dimensions (mm)

