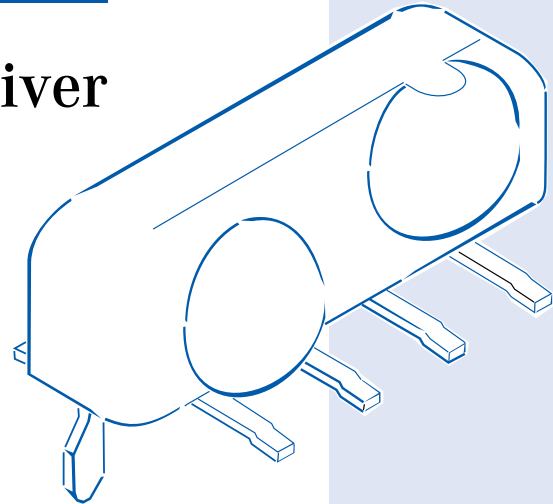


TFDS6000

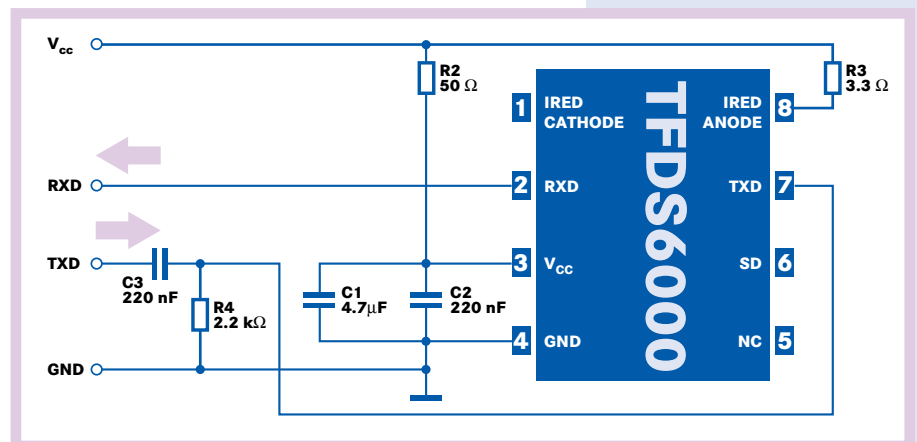
4 Mb/s IrDA Integrated Transceiver

FEATURES

- Compatible to IrDA version 1.1 and Sharp ASK
- Low power consumption (5 mA typ.)
- Power saving mode (75 μ A)
- Surface mountable
- Low profile (height: 5.6 mm max.)
- Differential design for excellent common-mode noise rejection
- Pin compatible to TFDS3000 transceiver



APPLICATION CIRCUIT



APPLICATIONS

- Personal computer, printer
- Personal digital assistant
- Handy terminal
- Cellular phone, pager

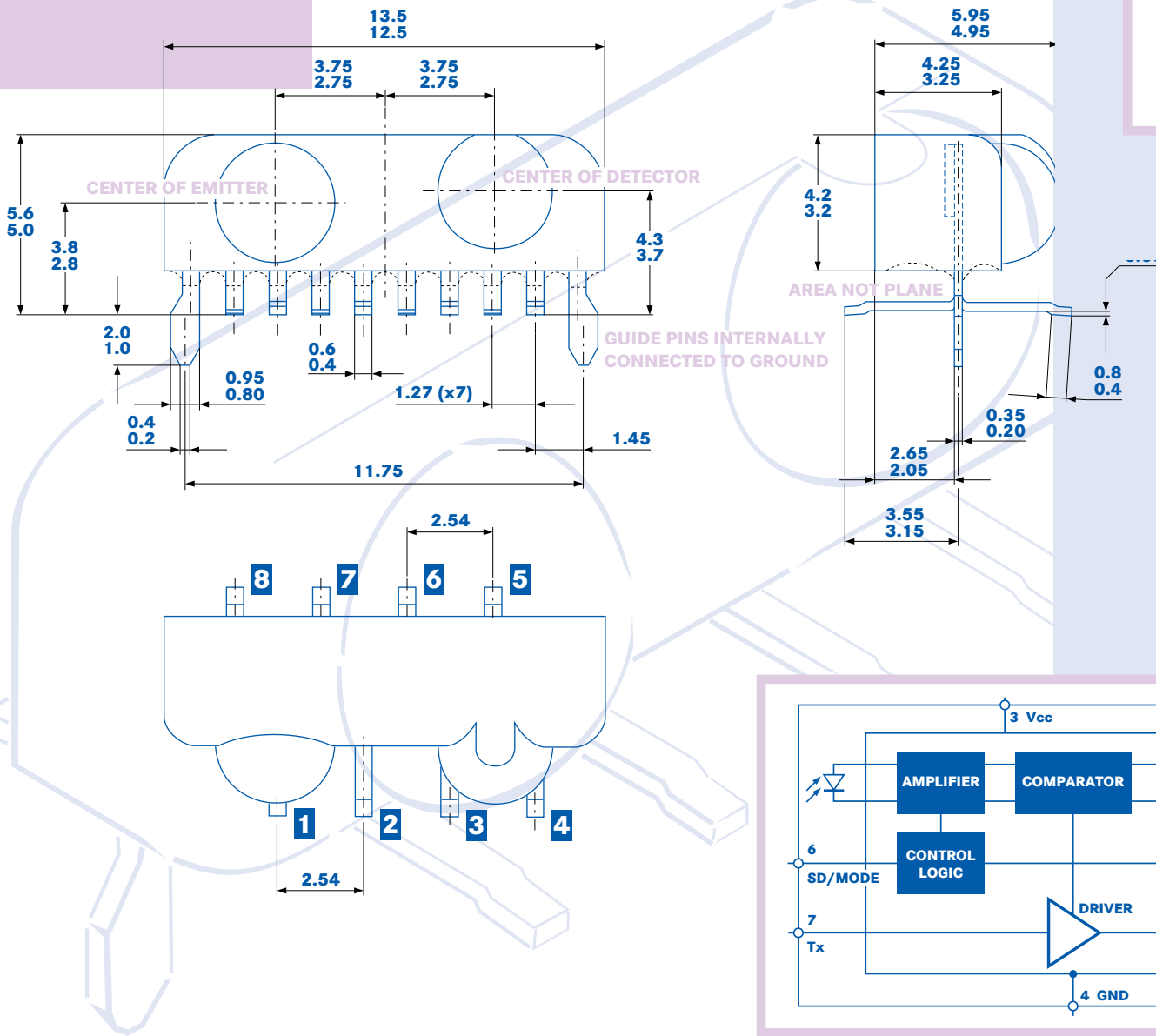
BASIC CHARACTERISTICS

PARAMETER	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Supply voltage	V_{CC}		4.5	5	5.5	V
Operating temperature range	T_A		0		70	$^{\circ}$ C
Current consumption, dynamic	I_{CC}		3	5	6	mA
Current consumption, standby	I_{SD}		50	75	100	μ A
Supported data rates					4 Mb/s	
Peak wavelength of emission	λ_p		850		900	nm
Transmitter radiant intensity, within 30° cone	I_e	$V_{CC}=5.0$ V $R_S=3.3$ Ω	100	140	200	mW/sr
Transmitter, angle of half intensity	α			± 24		$^{\circ}$
Transmitter input voltage, low	V_{IL}		0		0.8	V
Transmitter input voltage, high	V_{IH}		2.4		V_{CC}	
Optical output rise/fall time	t_r/t_f		10		35	ns
Receiver detection threshold $\alpha=\pm 15^{\circ}$	E_{emin}	< 1.2 Mb/s		25	35	mW/m ²
		4 Mb/s		80	100	mW/m ²
Receiver output voltage, low	V_{OL}			0.5	0.8	V
Receiver output voltage, high	V_{OH}		$V_{CC} - 0.5$			
Receiver output rise/fall time	t_r/t_f		10		35	ns

TFDS6000

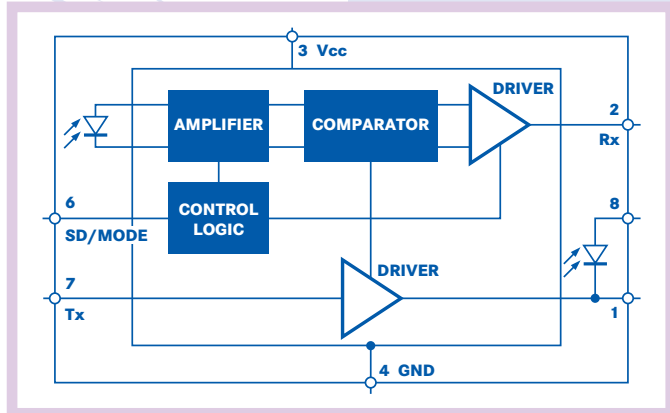


DIMENSIONS



PIN ASSIGNMENT

PIN#	PIN NAME	DESCRIPTION	I/O	ACTIVE
1	IREd cathode	Internally connected to driver transistor		
2	Rx (output)	Received data	O	Low
3	V _{CC}	Supply voltage		
4	GND	Ground		
5	NC	No connection		
6	SD/M	Shutdown, mode select	I	
7	Tx	Data to be transmitted	I	High
8	IREd	IREd anode		
-	Two guide pins	Internally connected to ground		



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