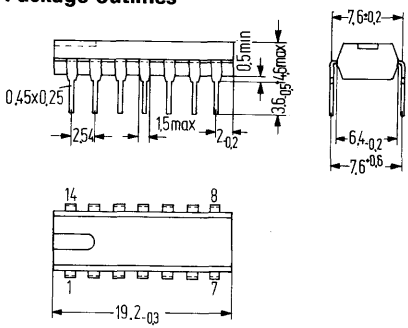
TDB 0556 A replaces two TDB 0555 in plastic plug-in package (14 pins) similar to 20 A 14 DIN 41866 (TO-116).

Type	Ordering code
TDB 0556 A	Q67000-A1046

Package outlines



Plastic plug-in package, 14 pins
20 A 14 DIN 41866 (TO-116)
Weight approx. 1.1 g
Dimensions in mm

Maximum ratings

Supply voltage	V_{CC}	16	V
Storage temperature	T_S	−65 to +150	°C
Junction temperature	T_j	150	°C
Thermal resistances: System-case	$R_{thScase}$	120	K/W

Range of operation

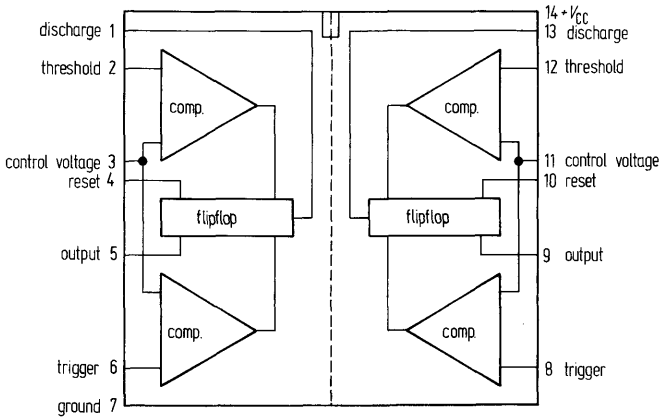
Supply voltage	V_{CC}	4.5 to 16	V
Ambient temperature in operation	T_{amb}	0 to +70	°C

Operating characteristics
V_{CC} = 5 to 15 V, T_{amb} = 25°C
unless otherwise specified

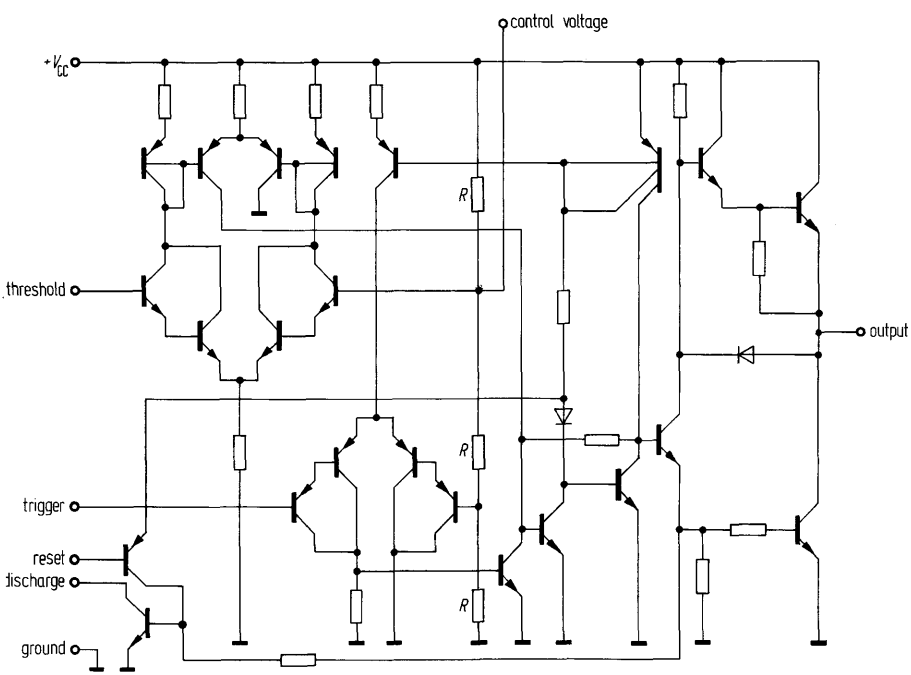
		min	typ	max	
Supply current ($R_L = \infty$, I_q = 1 mA)					
V_{CC} = 5 V			3	6	mA
V_{CC} = 15 V			10	14	mA
Frequency range		10^{-3}		10^6	Hz
Timing error (monostable; R_A = 2 to 100 kΩ, C = .1 μF)					
Initial accuracy (V_{CC} = 5 and/or 15 V)			.75		%
Drift with temperature (V_{CC} = 15 V)			50		ppm/K
Drift supply voltage (V_{CC} = 5 and/or 15 V)			.1		%/K
Timing error (astable; R_A, R_B = 2 to 100 kΩ, C = .1 μF)					
Initial accuracy (V_{CC} = 5 and/or 15 V)			2.25		%
Drift with temperature (V_{CC} = 15 V)			150		ppm/K
Drift with supply voltage (V_{CC} = 5 and/or 15 V)			.3		%/V
Threshold voltage			$^2/_3 \times V_{CC}$		
Threshold current (determines the max. value of $R_A + R_B$ for 15 V, max $R_A + R_B \leq 20$ MΩ)			30	100	nA
Trigger voltage: V_{CC} = 15 V			5		V
V_{CC} = 5 V			1.67		V
Trigger current			.5		μA
Reset voltage		.4	.7	1.0	V
Reset current			.1		mA
Control voltage level: V_{CC} = 15 V		9.0	10	11	V
V_{CC} = 5 V		2.6	3.33	4	V
Output voltage drop (low)	V_{qsat}				
V_{CC} = 15 V I_{sink} = 10 mA			.1	.25	V
I_{sink} = 50 mA			.4	.75	V
I_{sink} = 100 mA			2.0	2.75	V
I_{sink} = 200 mA			2.5		
V_{CC} = 5 V I_{sink} = 5 mA			.25	.35	V
Output voltage drop (high)	V_q				
V_{CC} = 15 V I_{source} = 100 mA			13.3		V
I_{source} = 200 mA			12.5		V
V_{CC} = 5 V I_{source} = 100 mA			3.3		V
Rise time of output			100		ns
Fall time of output			100		ns
Discharge leakage current			20	100	nA
Matching characteristics (refer to the difference between performance characteristics of each timer section)					
Initial timing accuracy			.1	.2	%
Timing drift with temperature			±10		ppm/K
Drift with supply voltage			.2	.5	%/V

For typical characteristics see TDB 0555 data sheet.

Block diagram

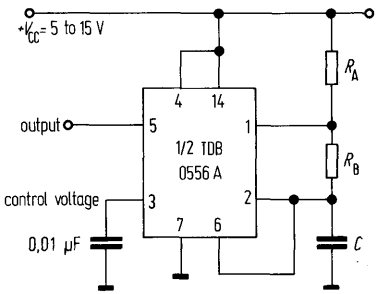


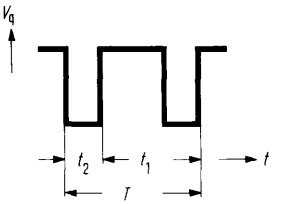
Equivalent circuit (shown for one side only)



Application circuits

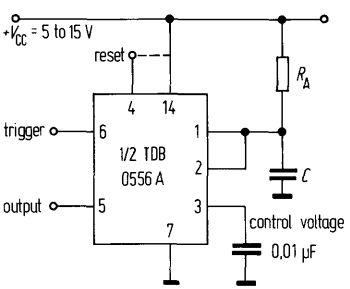
astable multivibrator





$t_1 = 0.693 \cdot (R_A + R_B) \cdot C$
$t_2 = 0.693 \cdot R_B \cdot C$
$T = t_1 + t_2 = 0.693 \cdot (R_A + 2\,R_B) \cdot C$

monostable multivibrator



$t_{on} = 1.1 \cdot R_A \cdot C$