
2SD1676

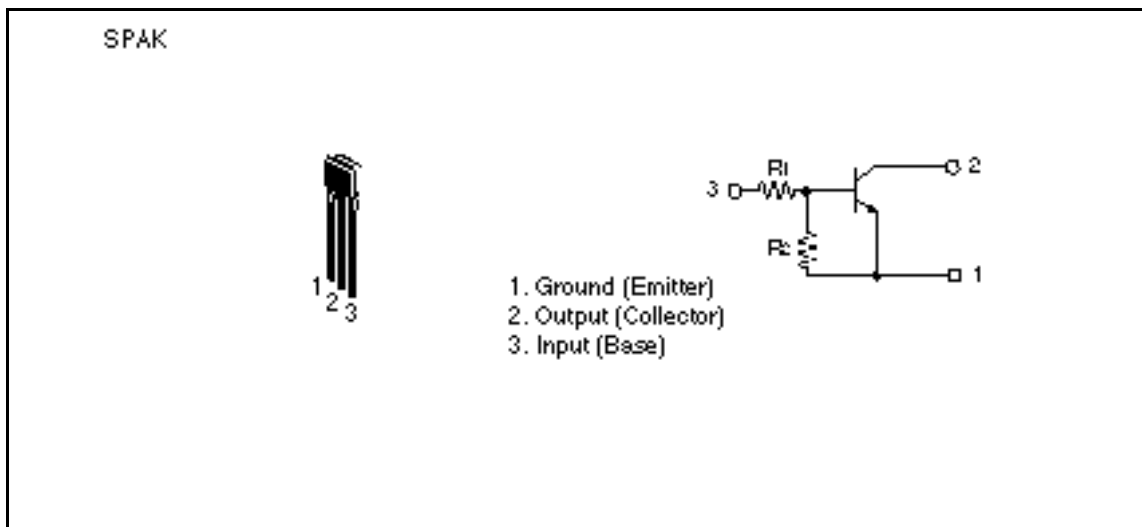
Silicon NPN with Internal Resistance

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Application

Low frequency amplifier, Muting, Switching, Inverter

Outline



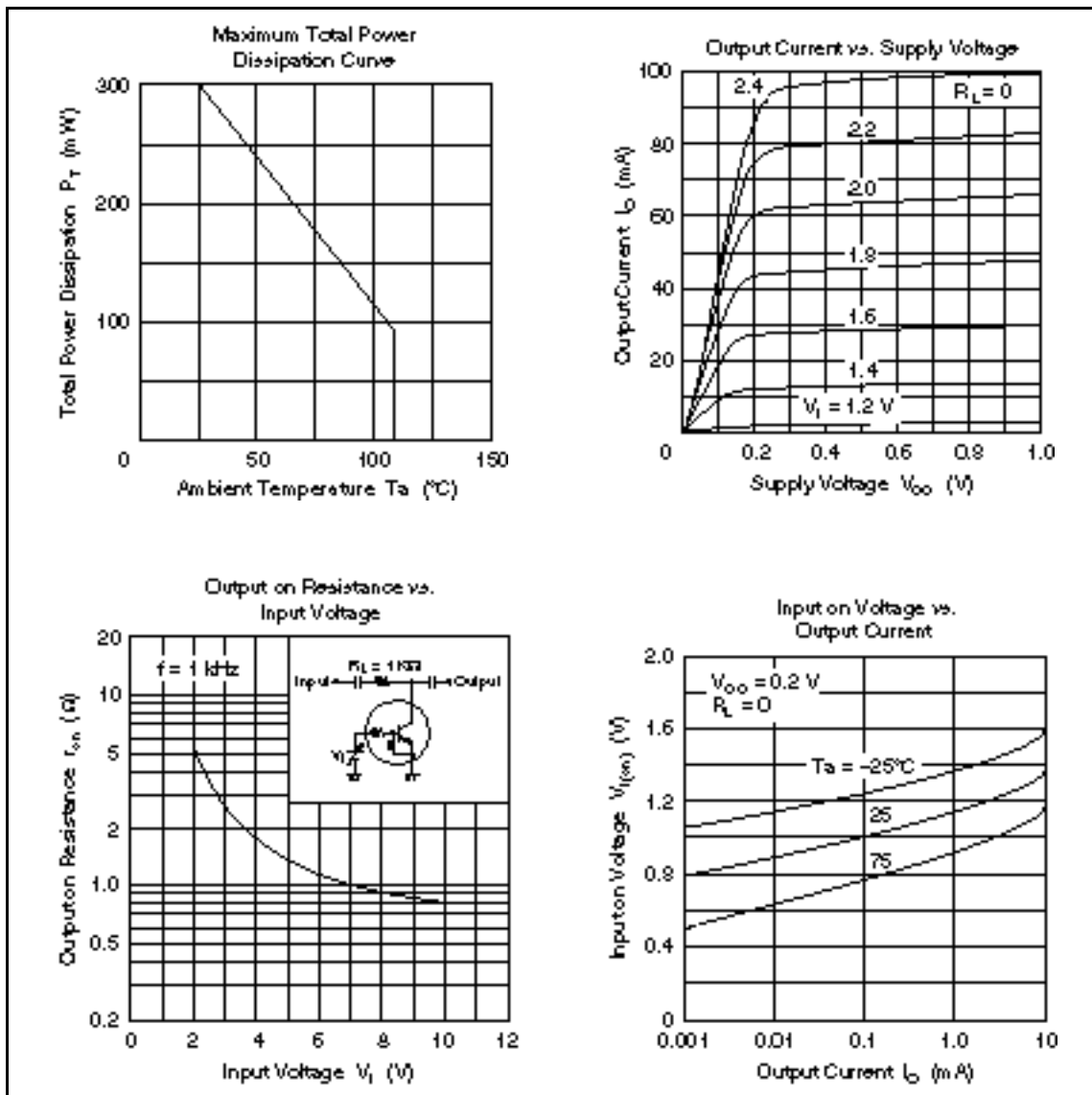
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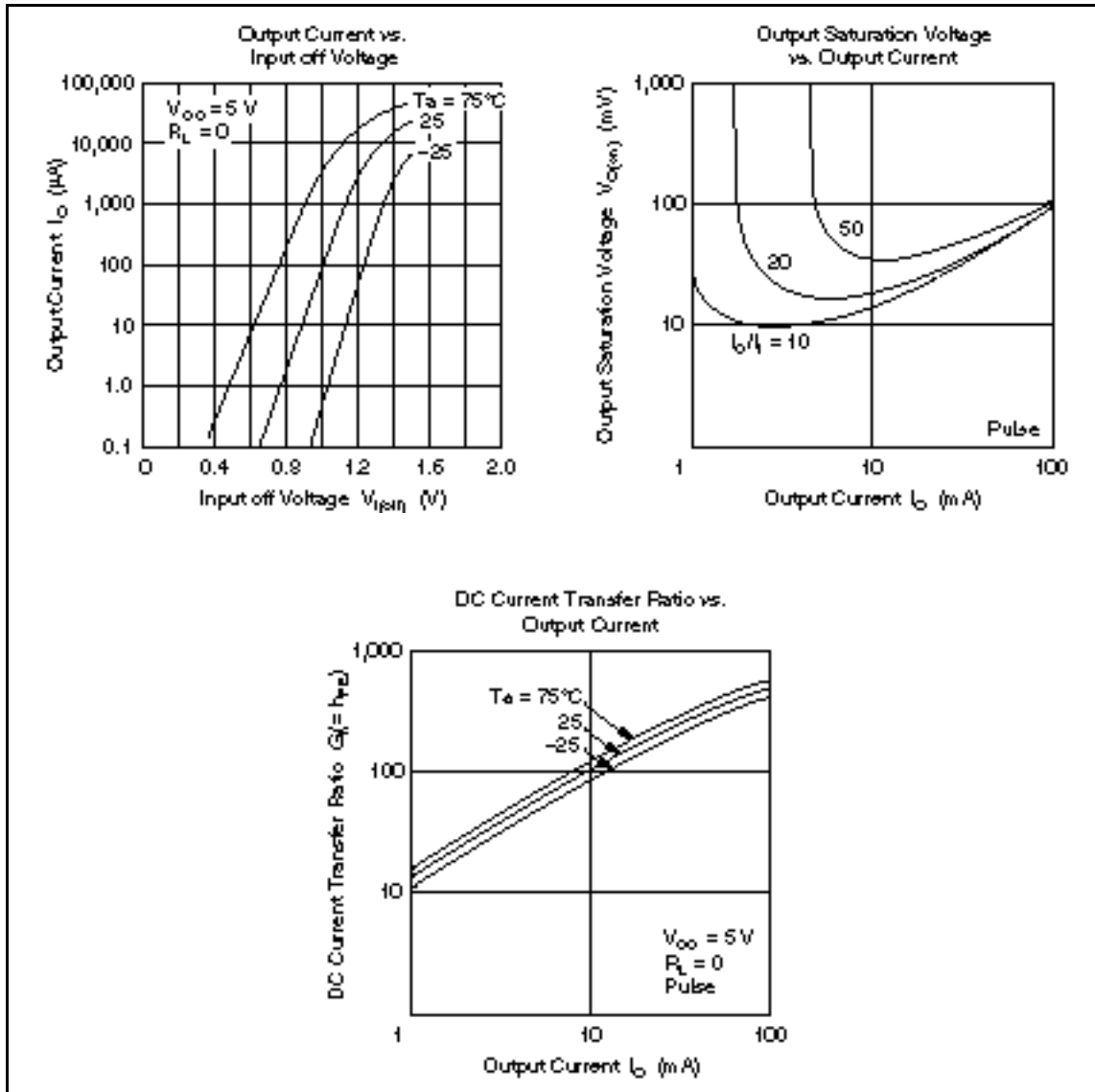
Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Ratings	Unit
Supply voltage	V_{CC}	20	V
Input voltage	V_I	± 10	V
Output current	I_O	600	mA
Total power dissipation	P_T	300	mW
Operating temperature	T_{OP}	-25 to +110	°C
Storage temperature	T_{stg}	-55 to +150	°C

Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Input on voltage	$V_{I(on)}$	1.1	—	1.7	V	$V_{CC} = 0.2 V, I_O = 10 mA$
Input off voltage	$V_{I(off)}$	0.5	—	1.2	V	$V_{CC} = 5 V, I_O = 10 \mu A$
Output saturation voltage	$V_{O(on)}$	—	20	40	mV	$I_O = 10 mA, I_I = 0.5 mA$
Output cutoff current	$I_{O(off)}$	—	—	0.5	μA	$V_{CC} = 5 V, V_I = 0$
DC current transfer ratio	G_i	60	100	—		$V_{CC} = 5 V, I_O = 10 mA$
Input resistance	R_i	—	6.8	—	k	
Resistance ratio	R_1/R_2	0.9	1.0	1.1		
Turn on time	t_{on}	—	0.3	—	μS	$V_{CC} = 5 V, V_I = 5 V, R_L = 1k$
Storage time	t_{stg}	—	1.5	—	μS	
Fall time	t_f	—	0.7	—	μS	
Output on resistance	r_{on}	—	1.0	—		$V_I = 7 V, R_L = 1k, f = 1kHz$





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