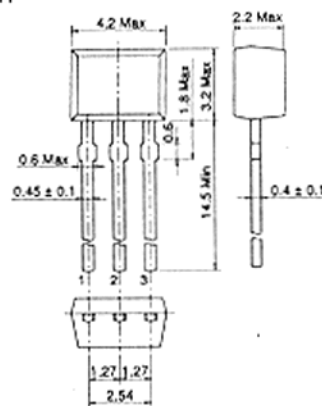


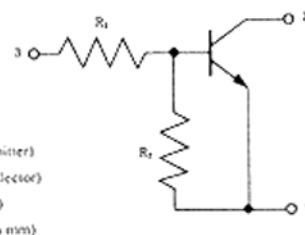
2SD1676

SILICON NPN WITH INTERNAL RESISTANCE

LOW FREQUENCY AMPLIFIER, MUTING
SWITCHING, INVERTER



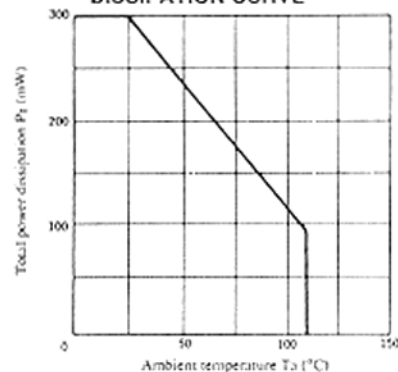
(SPAK)



■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SD1676	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

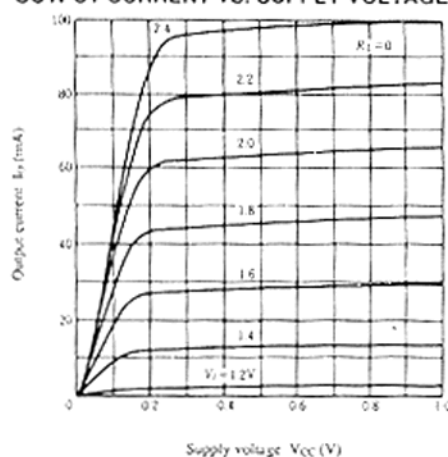
MAXIMUM TOTAL POWER DISSIPATION CURVE



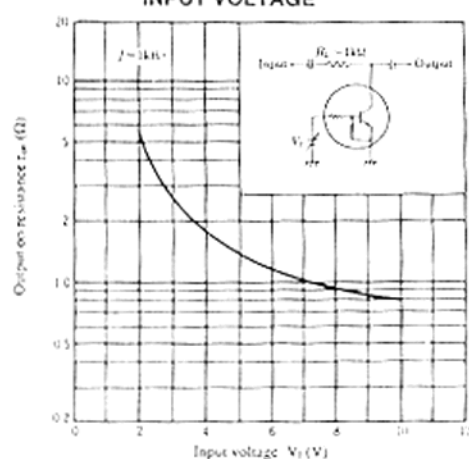
■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

Item	Symbol	Test Condition	min.	typ.	max.	Unit
Input on voltage	$V_{I(on)}$	$V_{CC} = 0.2V, I_O = 10mA$	1.1	—	1.7	V
Input off voltage	$V_{I(off)}$	$V_{CC} = 5V, I_O = 10\mu A$	0.5	—	1.2	V
Output saturation voltage	$V_{O(on)}$	$I_O = 10mA, I_i = 0.5mA$	—	20	40	mV
Output cutoff current	$I_{O(off)}$	$V_{CC} = 5V, V_i = 0$	—	—	0.5	μA
DC current transfer ratio	G_i	$V_{CC} = 5V, I_O = 10mA$	60	100	—	
Input resistance	R_i		—	6.8	—	k Ω
Resistance ratio	R_1/R_2		0.9	1.0	1.1	
Turn on time	t_{on}	$V_{CC} = 5V, V_i = 5V$ $R_L = 1k\Omega$	—	0.3	—	μs
Storage time	t_{ug}		—	1.5	—	μs
Fall time	t_f		—	0.7	—	μs
Output on resistance	r_{on}	$V_i = 7V, R_L = 1k\Omega, f = 1kHz$	—	1.0	—	Ω

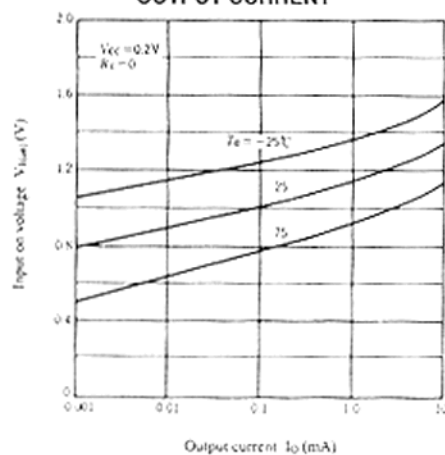
OUTPUT CURRENT VS. SUPPLY VOLTAGE



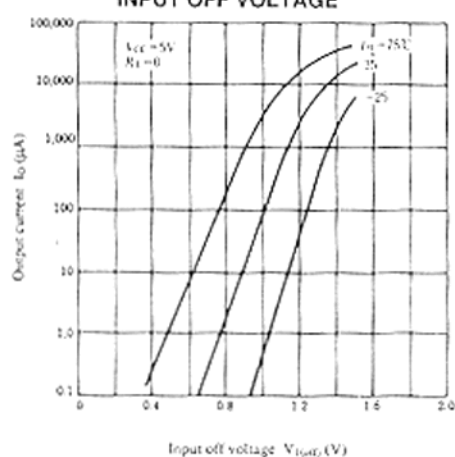
OUTPUT ON RESISTANCE VS. INPUT VOLTAGE



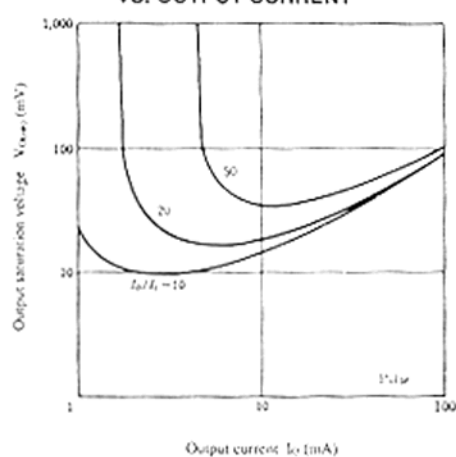
INPUT ON VOLTAGE VS. OUTPUT CURRENT



OUTPUT CURRENT VS. INPUT OFF VOLTAGE



OUTPUT SATURATION VOLTAGE VS. OUTPUT CURRENT



DC CURRENT TRANSFER RATIO VS. OUTPUT CURRENT

