

T-51-11



# Custom Devices, Inc.

## APPLICATIONS

FOR A/D AND D/A CONVERSION, SAMPLE AND HOLD CIRCUITS, AND MULTIPLEXING APPLICATIONS

## FEATURES

- COMPATIBLE WITH LOW-LEVEL POSITIVE LOGIC
- EXCELLENT NOISE IMMUNITY
- HANDLES AC SIGNALS THROUGH ONE MEGAHERTZ

## ABSOLUTE MAXIMUM RATINGS @ 25°C unless otherwise noted.

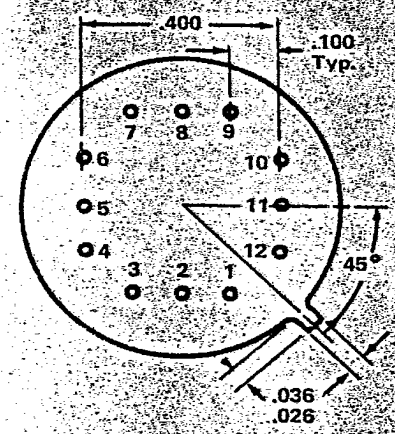
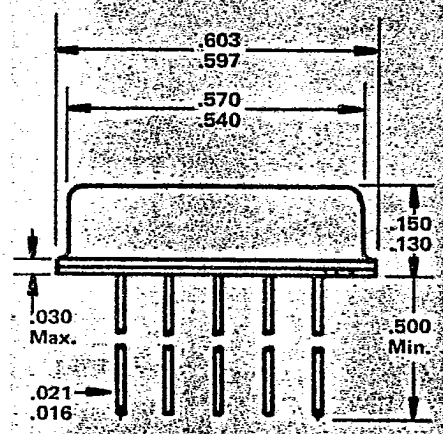
Input Supply Voltages ..... ±18 Volts  
 Storage Temperature ..... -65 to +150°C  
 Operating Temperature ..... -55 to +125°C

## ELECTRICAL CHARACTERISTICS @ 25°C unless otherwise noted.

SYMBOL	CHARACTERISTIC	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
$R_{DS(ON)}$	Drain to Source "ON" Resistance 85°C		30 50	65 95	Ohms Ohms	$I_D = 1.0mA, V_{GS} = 0$ $I_D = 1.0mA, V_{GS} = 0$
$R_{DS(OFF)}$	Drain to Source "OFF" Resistance	10 <sup>9</sup>			Ohms	$V_{DS} = 10V, V_{GS} = -7V$
$I_{D(OFF)}$	Drain Cutoff Current 85°C		0.5 10	1.0 60	nA nA	$V_{DS} = 20V, V_{GS} = -7V$ $V_{DS} = 20V, V_{GS} = -7V$
$C_{DGG}$	Drain to Gate Capacitance		5	7	pf	$V_{DS} = 20V, I_S = 0$ $f = 1MHz$
$C_{SGG}$	Source to Gate Capacitance		5	7	pf	$V_{SG} = 20V, I_D = 0$ $f = 1MHz$
$t_{ON}$	Turn-On Time		1.5	2.0	µSec	See Figure 4
$t_{OFF}$	Turn-Off Time		1.5	2.0	µSec	See Figure 4
$V_{OUT}$	DC Output Voltage	±8	±10		V	See Figure 4
$E_{OUT}$	AC Peak Output Voltage	±8	±10		V	See Figure 5

## ANALOG SWITCH SPDT

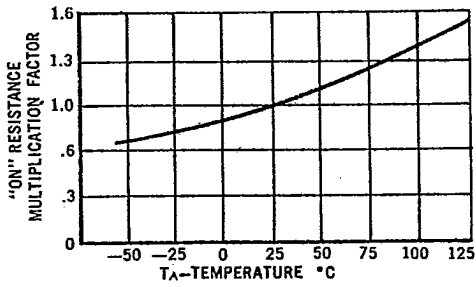
DAS 2126 B3



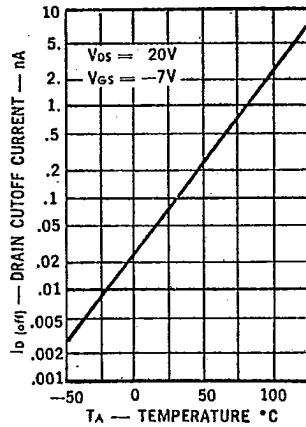
TO-8  
12 LEAD

DAS-02126-1x

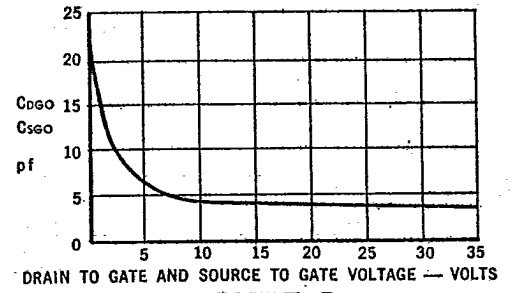
**ANALOG SWITCH/SINGLE POLE—DOUBLE THROW**



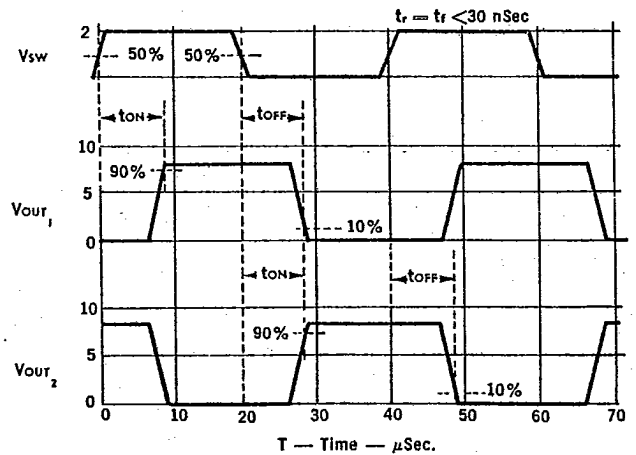
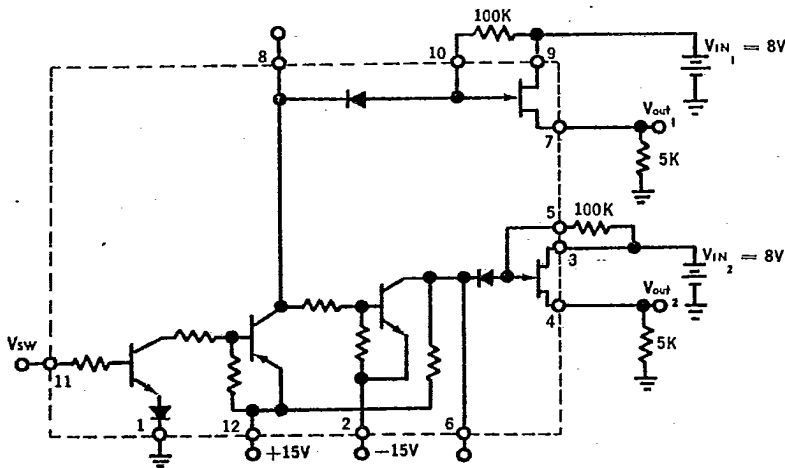
**FIGURE 1**  
DRAIN TO SOURCE "ON"  
RESISTANCE vs. TEMPERATURE  
(TYPICAL)



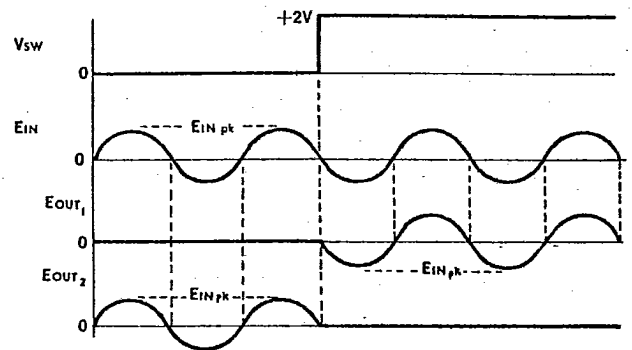
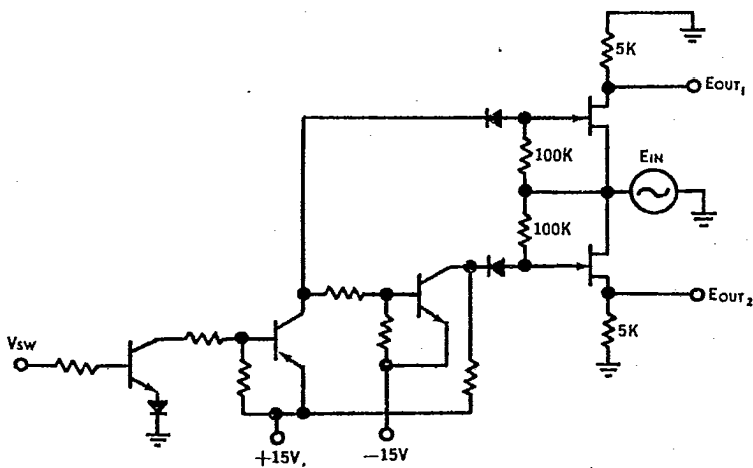
**FIGURE 2**  
 $I_{D(off)}$  vs. TEMPERATURE  
(TYPICAL)



**FIGURE 3**  
DRAIN TO GATE  
CAPACITANCE vs.  $V_{DG}$   
SOURCE TO GATE  
CAPACITANCE vs.  $V_{SG}$   
(TYPICAL)



**Figure 4**  
Switching Time Test Circuit



**Figure 5**  
AC Clipping Test Circuit

DA5--02126-2x