



M.S.KENNEDY CORP.

VERY HIGH LEVEL DIGITAL DRIVER

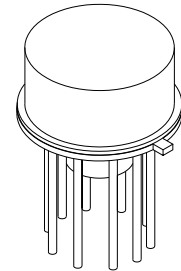
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4707 Dey Road Liverpool, N.Y. 13088

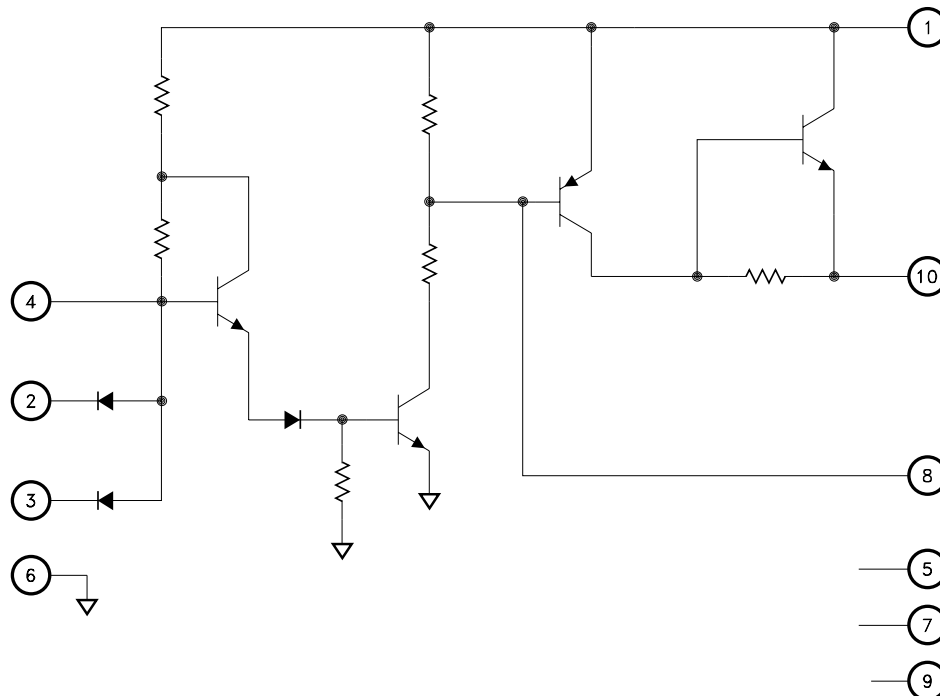
(315) 701-6751

MIL-PRF-38534 QUALIFIED**FEATURES:**

- Single Supply Operation From 10V to 45V
- Replaces NH/DH0008
- 'And' Input Logic With Expander
- External Transition Time Control
- Output Current to 3A Peak
- Available to DSCC SMD 5962-87617

**MSK0008****DESCRIPTION:**

The MSK 0008 is an integrated high voltage, high current driver designed to accept standard DTL or TTL logic levels and drive a pulsed load of up to 3A at 28V. AND inputs are provided along with an Expander connection, should additional gating be required. The addition of an external capacitor and resistor provides control of the rise and fall times of the output. The device is packaged in a hermetic 10 pin can.

EQUIVALENT SCHEMATIC**TYPICAL APPLICATIONS**

- Logic Level Translator
- Relay Driver
- Lamp Driver
- High Level Line Driver

PIN-OUT INFORMATION

1 Vcc	10 Output
2 Input	9 NC
3 Input	8 Response Time Control
4 Expander	7 NC
5 NC	6 Ground

ABSOLUTE MAXIMUM RATINGS

V_{CC}	Supply Voltage ($t \leq 0.1$ sec)	60V
I_{OUT}	Output Current (50mS)	3A
V_{IN}	Input Voltage	5.5V
I_{IN}	Expander Input Current	5mA

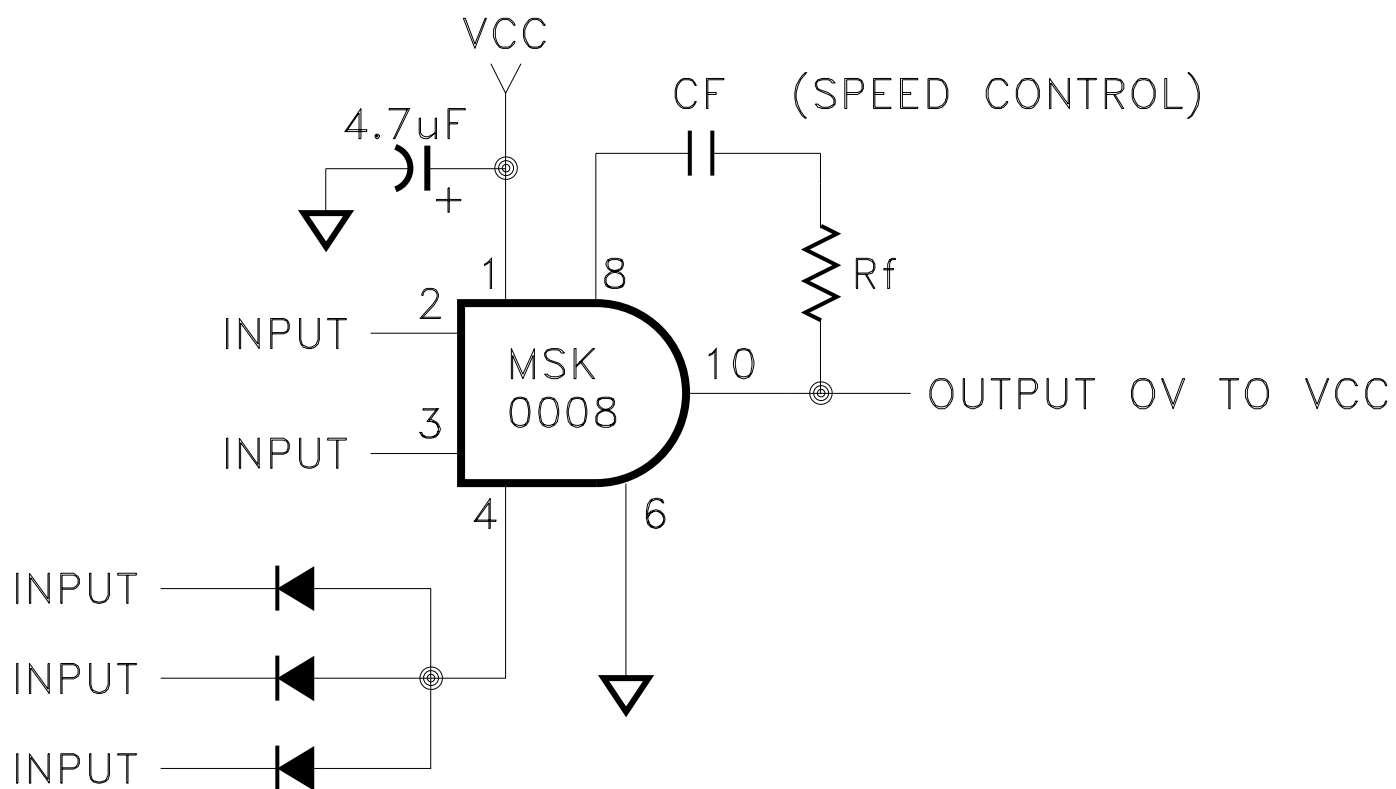
T_{ST}	Storage Temperature Range	-65°C to +150°C
T_{LD}	Lead Temperature Range (10 Seconds)	300°C
T_C	Case Operating Temperature (MSK 0008H/E)	-55°C to +125°C
	(MSK 0008)	-40°C to +85°C
T_J	Junction Temperature	175°C

ELECTRICAL SPECIFICATIONS

Parameter	Test Conditions ①	Group A	MSK0008H/E			MSK0008			Units
		Subgroup	Min.	Typ.	Max.	Min.	Typ.	Max.	
Power Supply Range ②	Continuous	-	10	28	45	10	28	45	V
Logic 1 Input Voltage ②	$10V \leq V_{CC} \leq 45V$	1,2,3	2.0	-	5.5	2.0	-	5.5	V
Logic 0 Input Voltage ②	$10V \leq V_{CC} \leq 45V$	1,2,3	-	-	0.8	-	-	0.8	V
Logic 1 Output Voltage	$V_{CC} = 28V$ $V_{IN} = 2V$ $R_L = 39\Omega$	1,2,3	26.5	27	-	26	27	-	V
	② $V_{CC} = 45V$ $V_{IN} = 2V$ $I_O = 1.6A$	1,2,3	43	43.5	-	42.5	43.5	-	V
Logic 0 Output Voltage	$V_{IN} = 0.8V$ $R_L = 100\Omega$	1,2,3	-	25	100	-	25	125	mV
Logic 1 Input Current ②	$V_{IN} = 2.4V$	1,2,3	-	1	5	-	1	10	μA
	$V_{IN} = 5.5V$	1,2,3	-	25	100	-	25	150	μA
Logic 0 Input Current ②	$V_{IN} = 0.4V$	1,2,3	-1.0	-	-	-1.1	-	-	mA
Off Supply Current	$V_{IN} = 0V$	1,2,3	-	0.5	2.0	-	0.5	2.2	mA
On Supply Current	$V_{IN} = 2.0V$	1,2,3	-	6	8	-	6	8.5	mA
Rise Time	$V_{CC} = 28V$ $R_L = 39\Omega$	4	-	200	500	-	200	550	nS
Fall Time	$V_{CC} = 28V$ $R_L = 39\Omega$	4	-	3	4.0	-	3	4.2	μS
Turn On Time ②⑦	$V_{CC} = 28V$ $R_L = 39\Omega$	4	-	0.6	1.0	-	0.6	1.1	μS
Turn Off Time ②⑦	$V_{CC} = 28V$ $R_L = 39\Omega$	4	-	8	10	-	8	10.2	μS
Thermal Resistance ②	Junction to Case @ $T_C = 125^\circ C$	-	-	25	35	-	25	40	$^\circ C/W$

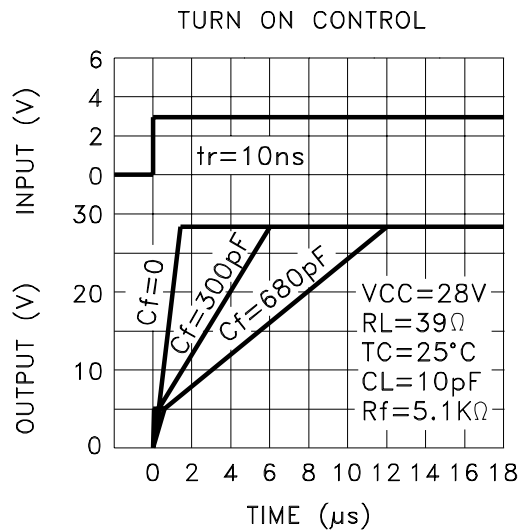
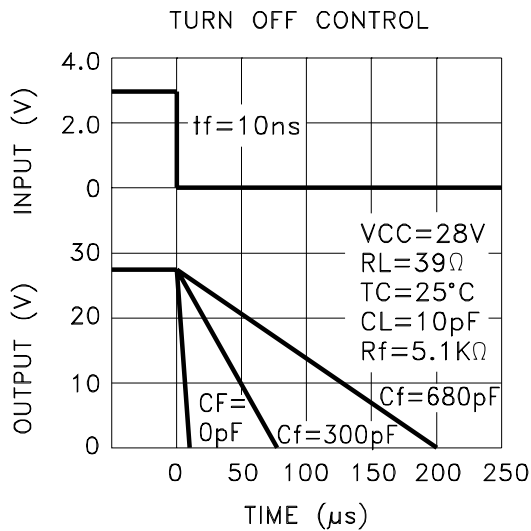
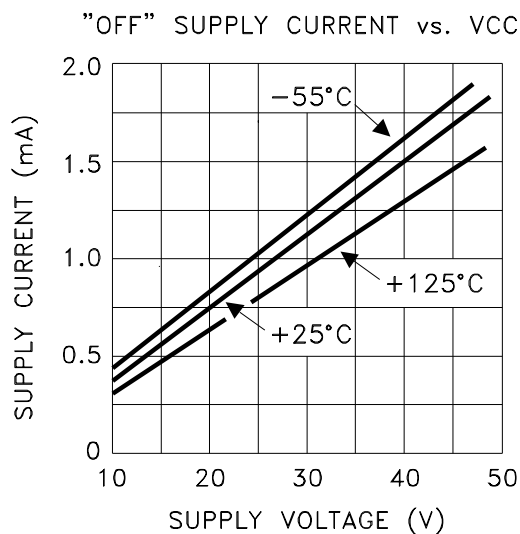
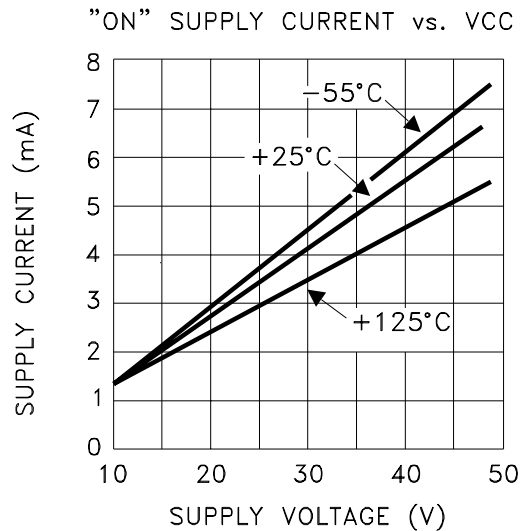
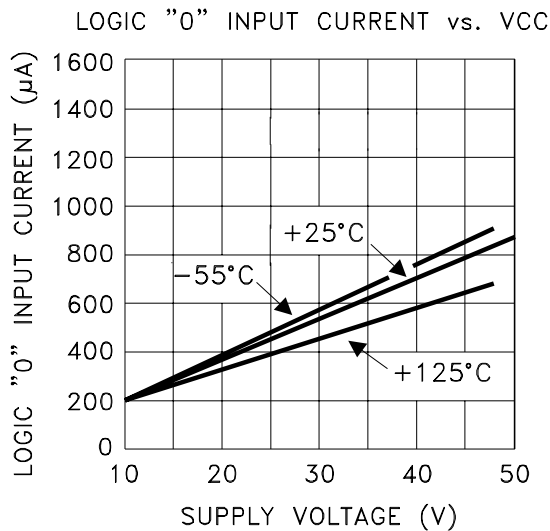
NOTES:

- ① $V_{CC} = 45V$, Cf/Rf = NC and $I_{OUT} = 0mA$ unless otherwise specified.
- ② Guaranteed by design but not tested. Typical parameters are representative of actual device performance at 25°C but are for reference only.
- ③ Industrial grade and "E" suffix devices shall be tested to subgroups 1 and 4 unless otherwise requested.
- ④ Military grade devices ("H" suffix) shall be 100% tested to subgroups 1,2,3 and 4.
- ⑤ Subgroup 5 and 6 testing available upon request.
- ⑥ Subgroup 1,4 $T_C = +25^\circ C$
Subgroup 2,5 $T_C = +125^\circ C$
Subgroup 3,6 $T_A = -55^\circ C$
- ⑦ Measured from 50% of V_{IN} to 90% of V_{OUT} transition.

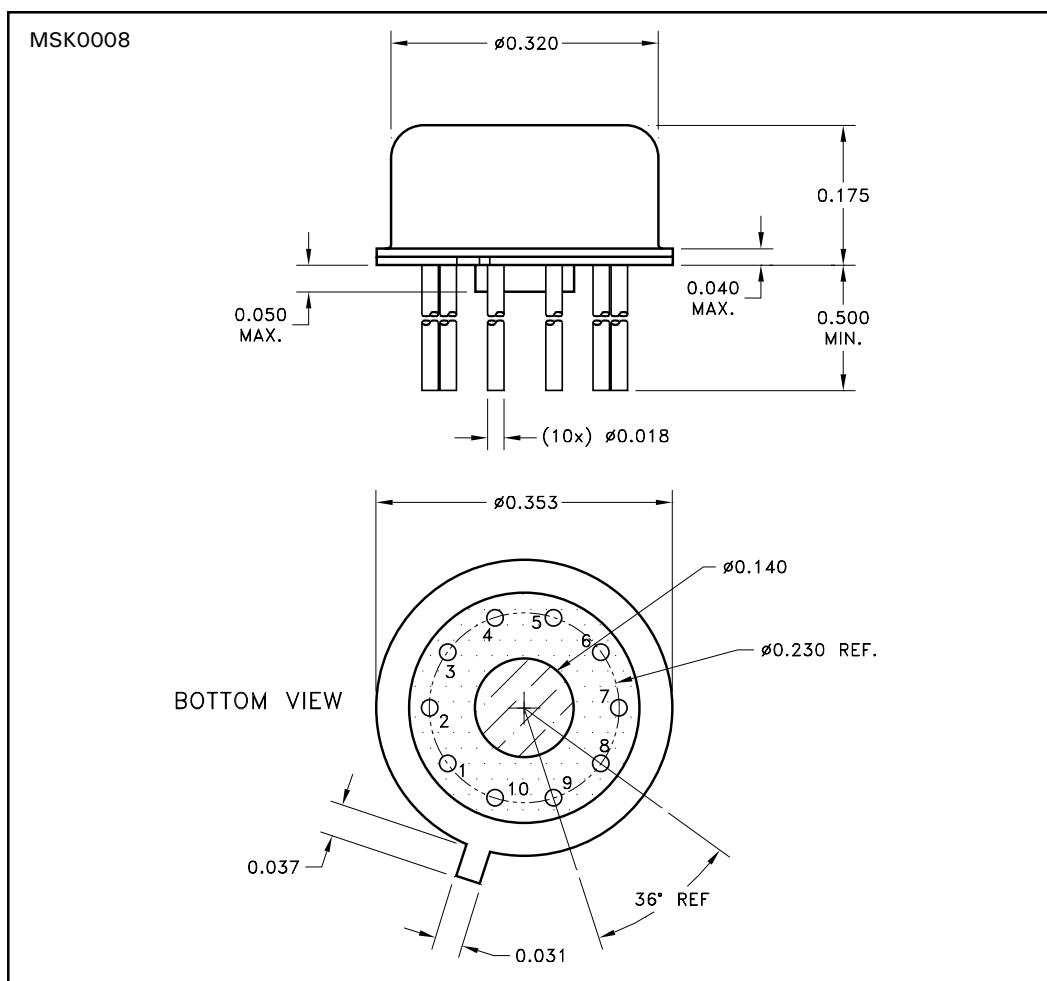


APPLICATION DIAGRAM

TYPICAL PERFORMANCE CURVES



MECHANICAL SPECIFICATIONS



ORDERING INFORMATION

Part Number	Screening Level
MSK0008	Industrial
MSK0008E	Extended Reliability
MSK0008H	Mil-PRF-38534 Class H
5962-8761702X	DSCC-SMD

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