+15V/-15V PIN Diode Switch Driver (DH0035/C Replacement)

GENERAL DESCRIPTION

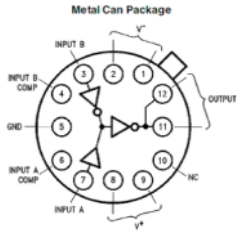
The 9535 is a high speed differential driver designed to drive PIN diode switches in RF modulators and switches.
The driver is compatible with CMOS and TTL logic and has a single inverting channel with +/- 15V and up to +/-400mA output.

FEATURES

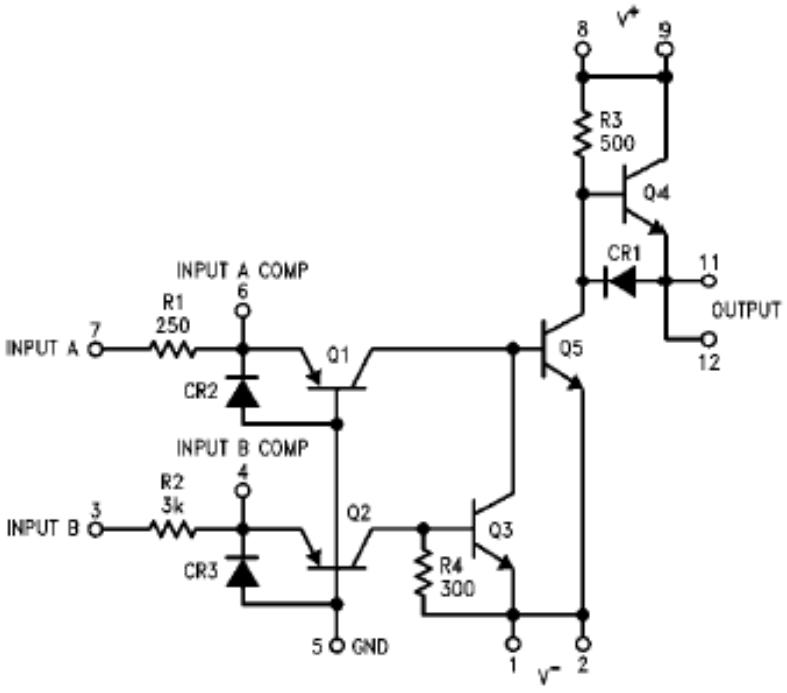
- High PRR 5 MHz
- Large output voltage 30V
- Peak output current in excess of 1A
- Direct replacement for DH0035/DH0035C

MECHANICAL

The 9535 is composed of silicon discrete BJT's mounted to a thin film substrate with integral TaN resistors. Package is TO-12 hermetic glass metal construction designed for good thermal footprint at high current ideal for integration into microwave assembly which operates in harsh environments of high temperature and vibration.



FUNCTION BLOCK DIAGRAM



PIN CONNECTIONS

1	Vneg
2	Vneg
3	Input B
4	Input B Comp
5	Ground
6	Input A Comp
7	Input A
8	Vpos
9	Vpos
10	NC
11	Output
12	Output

TRUTH TABLE

INA	INB	OUT
0	1	+mA
1	0	-mA

ELECTRICAL SPECIFICATIONS

Vpos +15V, Vneg -15V, TEMP 25C, PRR .5MHz

	SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
ABSOLUTE MAXIMUMS							
	Vpos	Supply Voltage Positive Differential		0		+30	V
	Vneg	Supply Voltage Negative Differential				-40	V
	To	Operating Temperature		-54		+100	Deg C
	Ts	Storage Temperature		-65		+125	Deg C
ENVIRONMENTAL							
	Enviro	Temperature Range		-55		+125C	Deg C
INPUT							
	VI_hi	Voltage Input High	TTL	2.4	1.0	2.0	V
	VI_low	Voltage Input Low	TTL	.4	.6		V
OUTPUT							
	VO_hi	Positive Output Swing	I out = 100mA	+7	+8		V
	VO_low	Negative Output Swing	I out = 100mA		-8	-7	V
	ISC_pos	Short Circuit Positive		400	800		mA
	ISC_neg	Short Circuit Negative		800	1000		mA
	Iopk	Current Peak Output	sink			3	A
DYNAMIC							
	Td_rise	Delay Rise			15	30	nS
	Td_fall	Delay Fall			10	15	nS
	TSW_rise	Switching Speed Rise	330pF load		12		nS
	TSW_fall	Switching Speed Fall	330pF load		12		nS
	PRR	Pulse Repetition Rate	Max, 10pF load		3	5	MHz

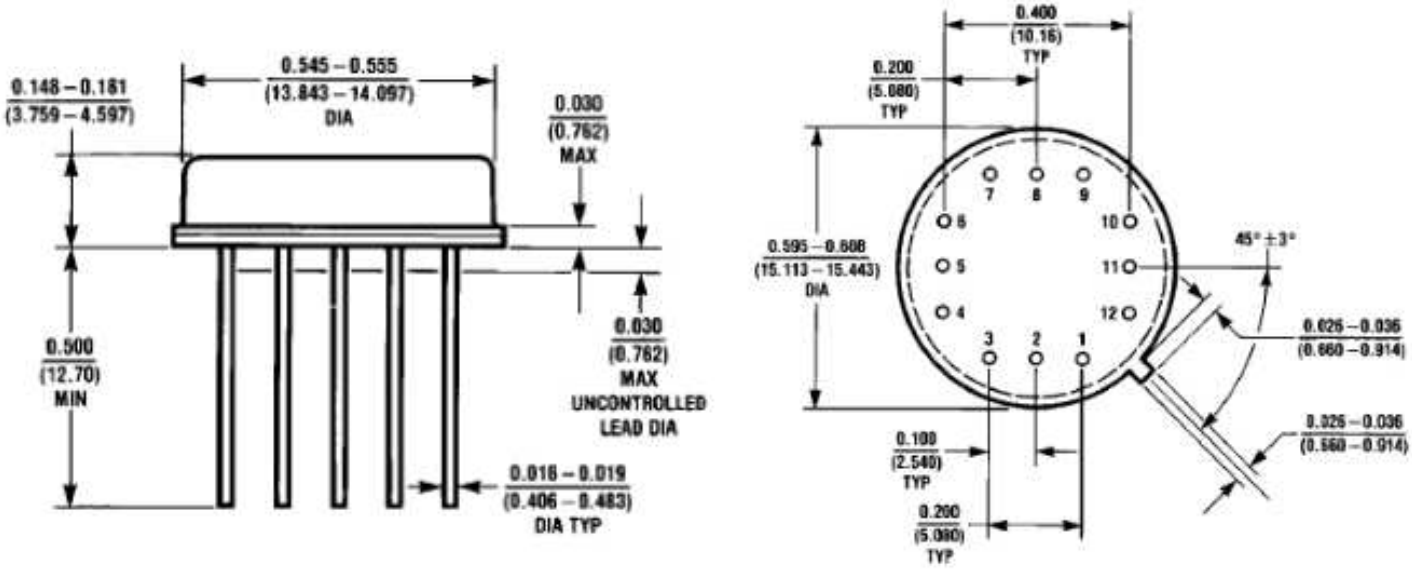
MECHANICAL SPECIFICATIONS

DRAWING NOT TO SCALE. DIMENSIONS ARE IN INCHES, UNLESS OTHERWISE NOTED.

Type: Housing; Lead Finish: Gold
Width .555 Diameter in TYPHeight .160 in TYP

MARKING SPECIFICATIONS

Logo: Impellimax
Part Number: 9535



ORDERING INFORMATION

Environmental			
Model	Temperature Range	Environmental Screening	Replaces Obsolete Part Number
9535	0C to +85C	NA	DH0035C
9535T	-55C to +125C	Mil-STD 883	DH0035