Magnetic Pickup Ignition Controller FM484

The FM484 is an integrated circuits designed for use with an NPN darlington in breakerless ignition systems with magnetic pickup sensors and high energy ignition coils.For the special design which has two input pins from the pickup,it can be used with a wide variety of magnetic sensors.The device drives an NPN external darlington to control the coil current providing the required stored energy with low dissipation.This circuit has many advantages:low power dissipation,stable,high ignition energy,self-protection,widely application conditions,long using life,etc,It's compatible for overseas products of the same class.

FEATURES

- Direct driving of the external darlington
- Operates with a wide range of magnetic pickup types
- Charging angle (dwell) control
- Coil current peak limitation
- Continuous coil current protection
- Tachometer signal output
- External darlington overvoltage protection
- Load dump and reverse battery protection
- Possibility of spark point delaying antiknock system
- High quality and stabili\ty for using advanced 3μm bipolar process

PIN FUNCTIONS

Pin	FUNCTIONS	Pin	FUNCTIONS
1	CURRENT SENSING	9	POWER-ON INPUT
2	PICKUP INPUT	10	SIGNAL GND
3	PERMANENT CONDUCT PROTECTION TIMER	11	POWER SUPPLY
4	PERMANENT CONDUCT PROTECTION INHIBIT	12	DUMP PROTECTION
5	RPM OUTPUT	13	GND
6	DWELL TIME ADJUST	14	DRIVER COLLECTOR INPUT
7	DWELL TIMER	15	OVERVOLT LIMIT
8	ZERO CROSSING INPUT	16	DRIVING STAGE OUTPUT

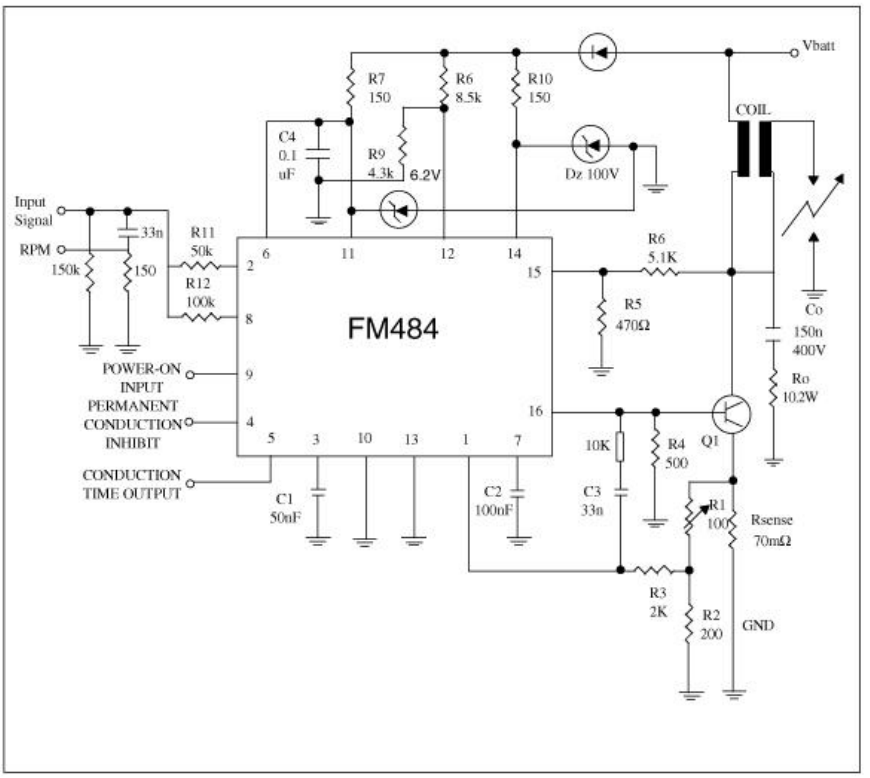
ABSOLUTE MAXIMUM RATINGS

Symbol	parameter	Value	Unit
Vr	Reverse Battery voltage	-14	V
Tstg	Storage Temperature Range	-55~150	°C
Ptot	Power Dissioation	0.75	W

ELECTRICAL CHARACTERISTICS

symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
Vs	Coerating Supply Voltage		6		28	V
Vis	Input Stage Voltage(pin 2 with 10KΩ resistor)		160	200	240	mV
Vzc	Zero Crossing Thresh.voltage (pin8)		3	20	60	mV
Vcesat	Series Darlington Driver	114=50mA			0.6	V
	Saturation Voltage(Vpin 14 ~16)	114=180mA		0.4	1.0	V
17c	Cdwell Charge Current	at Low RPM Vin=0.5V	0.7		3	μA
17d	Cdwell Discharge Current	at Low RPM Vin=0.5V	7		30	μA
17c	Cdwell Charge Current	at High RPM Vin=9V	8		33	μA
17d	Cdwell Discharge Current	at High RPM Vin=9V	13		44	μA
Vch	Tachometer Signal Output Low Voltage.(pin5)	ON:I_{sink}=0.5mA			0.7	V
Ich	Output Leakage(pin5)	OFF:V_{pin5}=5V			10	μA
Vovz	External Darlington Overvoitage Protection Zener Voltage	T_{amb}=25℃	25		35	V
		I_{pin15}=5°15mA				
Vz	Zener Volt.(Pin 11)	I_{pin11}=140mA	6.5		8.8	V
Vpin3	Threshold Voltage	T_{amb}=25℃	0.84		4	V
I3	Output Current				3	μA

APPLICATION CIRCUIT



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