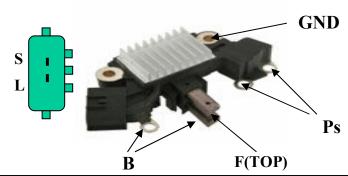
## **Regulation System Connection Wire Diagram**



## **System Regulator Type:**

• Voltage Set Point :14.5V

• Regulation : A – Circuit

• Inactive Lamp

• Soft- Start, 8.5sec LRC

• Short Circuit Protection

PARAMETERS AND CONDITIONS	SYMBOLS	MIN.	TYP.	MAX.	UNITS
Operating Temperature Range	T <sub>OP</sub>	-30		125	$^{\circ}\!\mathbb{C}$
Field	$I_{\mathrm{F}}$		5		A
Voltage Set Point (2500 RPM, at 20A load)	V <sub>SET</sub>	14.3	14.5	14.7	V
Secondary Set Point (2500 RPM ,at 20A load)	V <sub>SET2</sub>	15.2	15.5	15.8	V
Speed Regulation (2000 RPM to 6000 RPM ,at load = 15A)	$ m V_{SR}$		-0.1	-0.3	V
Load Regulation (10% to 95%, at Speed = 6000 RPM)	V <sub>LR</sub>		-0.4	-0.5	V
Saturation Voltage @ 5A, 12Volts	V <sub>SAT</sub>		0.6	0.8	V
Standby Current (Key off, V <sub>BAT</sub> = 12.6V)	I <sub>SB</sub>			1.0	mA
Temperature Coefficient	T <sub>C</sub>	-6	-3	0	mV/ °C
Over voltage Indication	V <sub>ov</sub>	16.0	16.5	17.0	V
Under voltage Indication	$\mathbf{V}_{\mathbf{U}\mathbf{V}}$	9.3	9.8	10.3	V
Soft-Start Duty	D <sub>SS</sub>	15	30	45	%
LRC Delay Time	$T_{LRC}$	6.5	8.5	10.5	Sec
Cut-in Speed	R <sub>CIS</sub>			1200	RPM

## **Safety Characteristics:**

- ➤ Over voltage: Vs = 24 V, 60 sec. from the ignition SW. is turned ON/OFF without failure.
- ➤ Battery Reversal: Vs = -14 V, 60 sec. from accidental battery reversal without failure.
- ➤ **Short Circuit Protection**: The regulator stands short circuit of Field without failure.
- > Repetitive Thermal Shock:

The Regulator shall be designed to withstand 500 cycles of -30 $^{\circ}$ C to 125 $^{\circ}$ C in 20 minutes and 125 $^{\circ}$ C to -30 $^{\circ}$ C in 20 minutes.

## ➤ High Temperature Test :

The Regulator shall be designed to operate reliability at the rated current of alternator is 80% to 100% and at 6000 rpm ( shaft speed ) for a minimum of 10 hours at 125 °C.

2004.03.16	2008.10.13	4	呂仁豪	卓建廷	陳建文	MOBILETRON
Date of			Manu-	Review		Oct.16.2008
first edition	revised edition	Edition	script	Review	Approval	Release