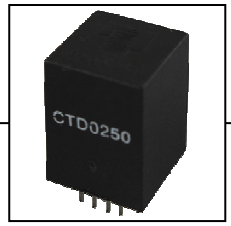
百世科技股份有限公司

Open Loop Current Sensor



ELECTRICAL DATA/INPUT：

Primary Nominal R.M.S. Current Ir(A)	Primary Current Measuring Range Ip(A) at Vcc=±15V	Part Name Type	Part Number
3~50	**±Ir*3**	**CTD0030~CTD0500**	**CT004XXXXXXX**

Vcc	Supply Voltage	±15V ±5%
Ic	Current Consumption	<20mA
Iis	R.M.S. Voltage for 2.5KVAC Isolation test, 50/60Hz,1min	<10mA
Ris	Isolation Resistance at 500 VDC	>500Mohm

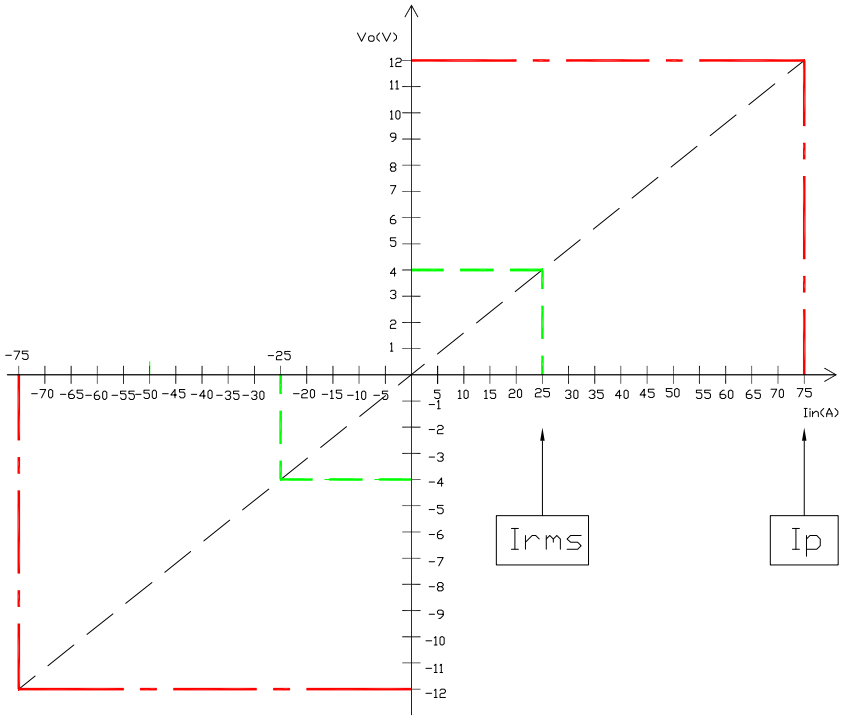
ELECTRICAL DATA/OUTPUT

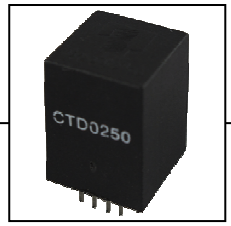
Vout	Output voltage at Ir , T_A=25℃	4V±1%
Rout	Output Impedance	<150 ohm
R_L	Load Resistor	>10Kohm
X	Accuracy at Ir , T_A=25℃ (without offset)	<±1%
E_L	Linearity from 0 to Ir , T_A=25℃	<±1%
Voe	Electrical Offset Voltage , T_A=25℃	<±40mV
Vom	Magnetic Offset Voltage (Ir→0)	<±15mV
Vot	Thermal Drift of Offset Voltage	<±2mV/℃
T.C.	Thermal Drift (-10℃ to 50℃)	<±0.1%/℃
Tr	Response Time to 90% of Ir(f=1KHz)	<3us
FB	Frequency Bandwidth (-3dB)	50KHz

GENERAL DATA：

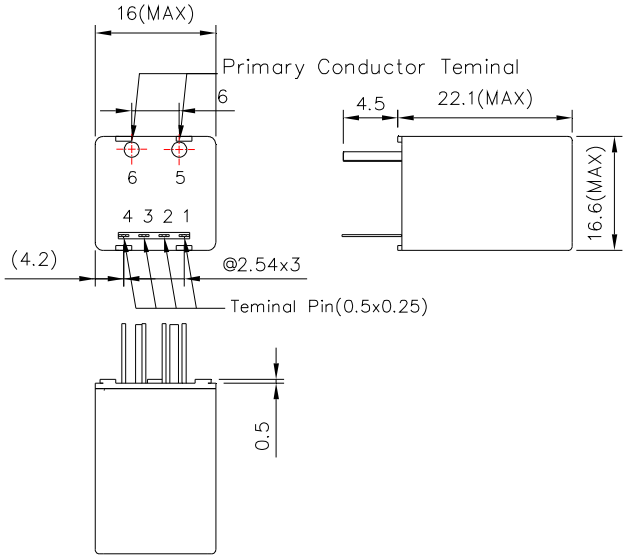
T_A	Ambient Operating Temperature	-10 ~ +80℃
Ts	Ambient Storage Temperature	-25 ~ +85℃

Output voltage v.s. Input current: Ex: Irms=25A ; Ip=25*3=75A, Vcc=±15V(Dual power)





Outline dimension & Pin definition (all tolerance:±0.5mm)



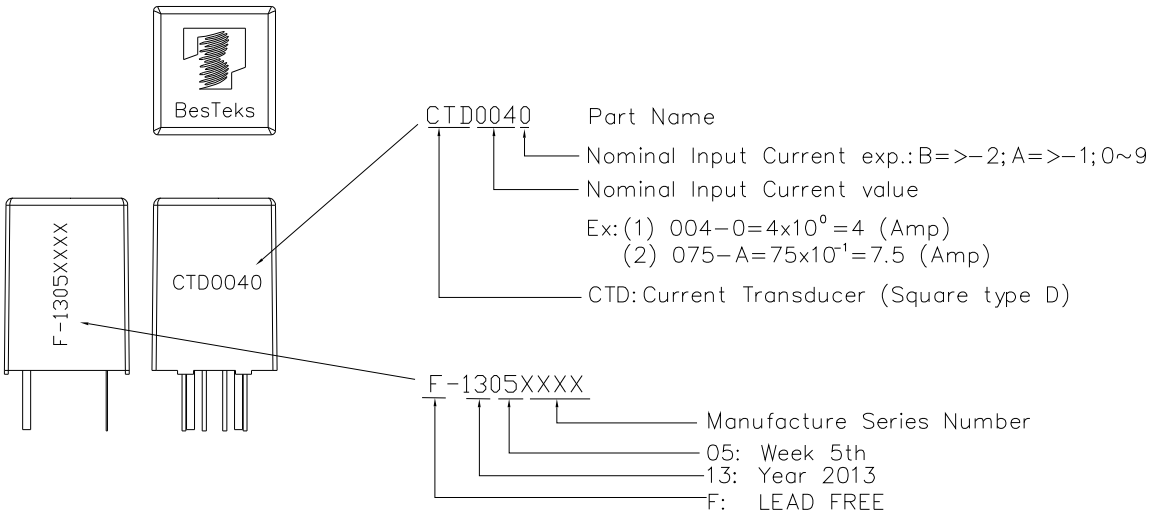
Terminal Pin Identification

1. V−
2. Ground
3. V+
4. Output
5. Coil Input +
6. Coil Input −

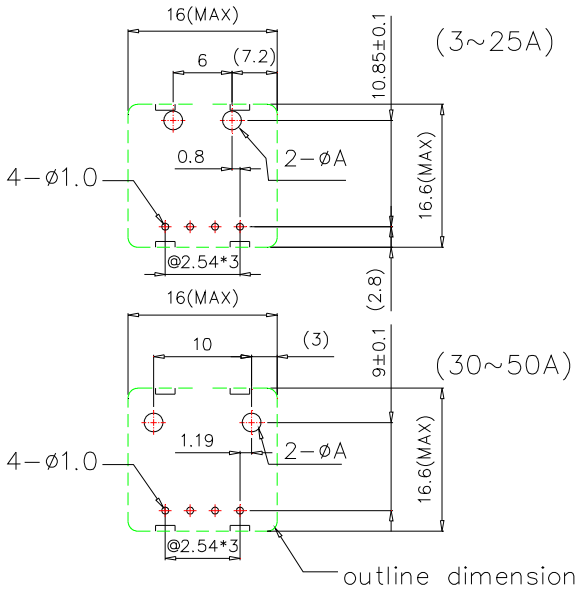
Primary Conductor Terminal

CTD0030	ø0.6	CTD185A	ø1.6
CTD375B	ø0.6	CTD0200	ø1.6
CTD0040	ø0.6	CTD0250	ø1.6
CTD0050	ø0.8	CTD0300	ø2.2
CTD625B	ø0.8	CTD0350	ø2.2
CTD075A	ø1.0	CTD375A	ø2.2
CTD0100	ø1.0	CTD0400	ø2.2
CTD125A	ø1.6	CTD0450	ø2.2
CTD0150	ø1.6	CTD0500	ø2.2

Marking & Description



Layout Recommend:



Part Name	øA(mm)	Part Name	øA(mm)
CTD0030	ø1.0	CTD185A	ø2.0
CTD375B	ø1.0	CTD0200	ø2.0
CTD0040	ø1.0	CTD0250	ø2.0
CTD0050	ø1.2	CTD0300	ø2.6
CTD625B	ø1.2	CTD0350	ø2.6
CTD075A	ø1.4	CTD375A	ø2.6
CTD0100	ø1.4	CTD0400	ø2.6
CTD125A	ø2.0	CTD0450	ø2.6
CTD0150	ø2.0	CTD0500	ø2.6