COSEL DC-DC Converters PCB Mount type

SUTW3

Ordering information

SUT	W	3	12	12	-□
①	②	③	④	⑤	⑥

①Series name
②Dual output
③Output wattage
④Input voltage
⑤Output voltage
⑥Optional
G :Capacitor between Input and Output is removed.

RoHS

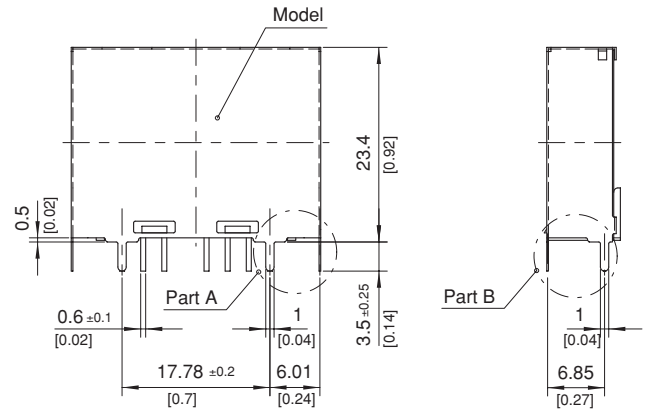
MODEL		SUTW30512	SUTW30515	SUTW31212	SUTW31215	SUTW32412	SUTW32415	SUTW34812	SUTW34815
MAX OUTPUT WATTAGE[W]		3.12	3	3.12	3	3.12	3	3.12	3
DC OUTPUT	VOLTAGE[V] ＊1	±12 or +24	±15 or +30	±12 or +24	±15 or +30	±12 or +24	±15 or +30	±12 or +24	±15 or +30
	CURRENT[A]	0.13	0.1	0.13	0.1	0.13	0.1	0.13	0.1

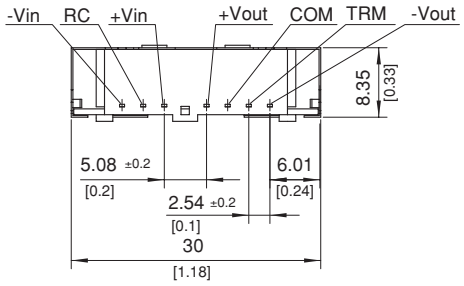
SPECIFICATIONS

	MODEL		SUTW30512	SUTW30515	SUTW31212	SUTW31215	SUTW32412	SUTW32415	SUTW34812	SUTW34815
INPUT	VOLTAGE[V]		DC4.5 - 9		DC9 - 18		DC18 - 36		DC36 - 76	
	CURRENT[A]	＊2	0.844typ	0.811typ	0.343typ	0.329typ	0.172typ	0.165typ	0.086typ	0.083typ
	EFFICIENCY[%]	＊2	74typ	74typ	76typ	76typ	76typ	76typ	76typ	76typ
OUTPUT	VOLTAGE[V]		±12(+24)	±15(+30)	±12(+24)	±15(+30)	±12(+24)	±15(+30)	±12(+24)	±15(+30)
	CURRENT[A]		0.13	0.1	0.13	0.1	0.13	0.1	0.13	0.1
	LINE REGULATION[mV]		60max	75max	60max	75max	60max	75max	60max	75max
	LOAD REGULATION[mV]		600max	750max	600max	750max	600max	750max	600max	750max
	RIPPLE[mVp-p]	-20 to +55℃ ＊3	120max	120max	120max	120max	120max	120max	120max	120max
		-40 to -20℃ ＊3	150max	150max	150max	150max	150max	150max	150max	150max
	RIPPLE NOISE[mVp-p]	-20 to +55℃ ＊3	150max	150max	150max	150max	150max	150max	150max	150max
		-40 to -20℃ ＊3	200max	200max	200max	200max	200max	200max	200max	200max
	TEMPERATURE REGULATION[mV]	-20 to +55℃	150max	180max	150max	180max	150max	180max	150max	180max
		-40 to +55℃	240max	290max	240max	290max	240max	290max	240max	290max
	DRIFT[mV]	＊4	50max	60max	50max	60max	50max	60max	50max	60max
	START-UP TIME[ms]		20max (Minimum input, Io=100%)							
	OUTPUT VOLTAGE ADJUSTMENT RANGE		Fixed (TRM pin open) ±5% adjustable by external VR							
	OUTPUT VOLTAGE SETTING[V] (±5%)		11.40 - 12.60	14.25 - 15.75	11.40 - 12.60	14.25 - 15.75	11.40 - 12.60	14.25 - 15.75	11.40 - 12.60	14.25 - 15.75
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION		Works over 105% of rating and recovers automatically							
	REMOTE ON/OFF		Provided (Negative logic L : ON, H : OFF)							
ISOLATION	INPUT-OUTPUT		AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)							
	INPUT-CASE		AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)							
	OUTPUT-CASE		AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)							
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE		-40 to +85℃, 20 - 95%RH (Non condensing) (Required Derating), 3,000m (10,000feet) max							
	STORAGE TEMP.,HUMID.AND ALTITUDE		-40 to +100℃, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max							
	VIBRATION		10 - 55Hz, 98.0m/s² (10G), 3minutes period, 60minutes each along X, Y and Z axis							
	IMPACT		490.3m/s² (50G), 11ms, once each along X, Y and Z axis							
SAFETY	AGENCY APPROVALS		UL60950-1, C-UL, EN60950-1							
OTHERS	CASE SIZE/WEIGHT		30.0×23.4×9.15mm [1.18×0.92×0.36 inches] (W×H×D) / 8g max							
	COOLING METHOD		Convection/Forced air							

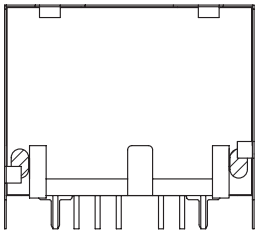
＊1 Output pins can be connected in series to make a 24V/30V output.
＊2 Rated input 5V, 12V, 24V or 48V DC Io=100%
＊3 Ripple and Ripple Noise is measured by using measuring board with capacitor with in 25mm from output pin terminals.
＊4 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25℃.
＊ Parallel operation with other model is not possible.

External view

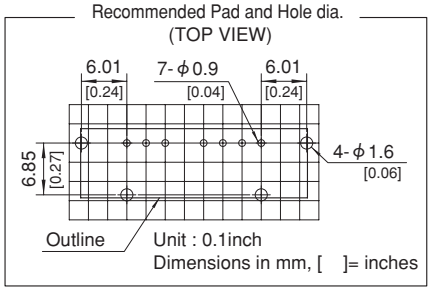




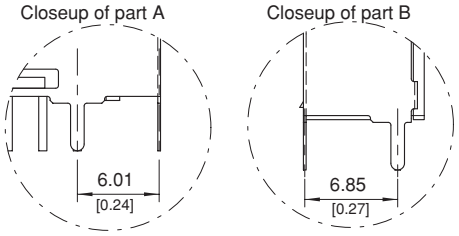
※ Back View



: Conduction Area



※ Tolerance ±0.5 [±0.02]
※ Dimensions in mm, [ ]= inches
※ Pin terminal thickness : 0.3±0.1 [0.012]
※ Pin terminal material : Copper alloy
※ Plating treatment of terminal : Lead free plating
※ Case thickness : 0.2±0.05 [0.008]
※ Case material : Brass
※ Plating treatment of case : Nickel plating
※ Please keep enough creepage distance with the pattern on PCB and other components.
※ Weight : 8g max



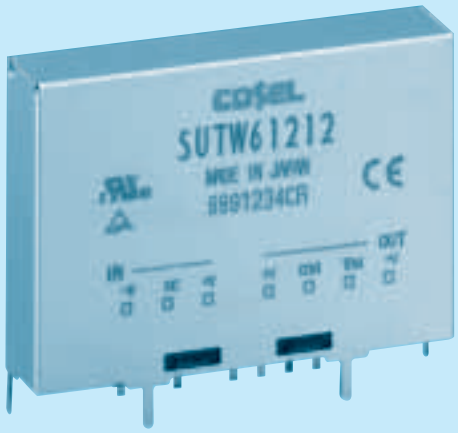
COSEL DC-DC Converters PCB Mount type

SUTW6

Ordering information

SUT	W	6	12	12	-□
①	②	③	④	⑤	⑥

①Series name
②Dual output
③Output wattage
④Input voltage
⑤Output voltage
⑥Optional
G :Capacitor between Input and Output is removed.



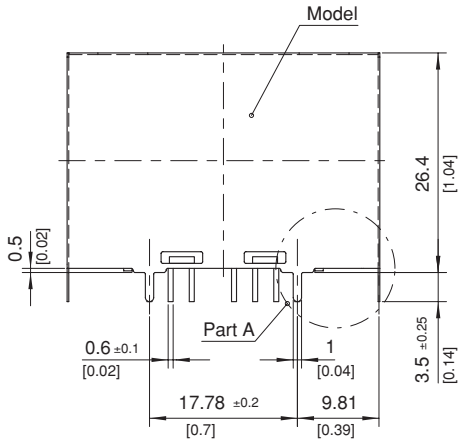
MODEL		SUTW60512	SUTW60515	SUTW61212	SUTW61215	SUTW62412	SUTW62415	SUTW64812	SUTW64815
MAX OUTPUT WATTAGE[W]		6	6	6	6	6	6	6	6
DC OUTPUT	VOLTAGE[V] *1	±12 or +24	±15 or +30	±12 or +24	±15 or +30	±12 or +24	±15 or +30	±12 or +24	±15 or +30
	CURRENT[A]	0.25	0.2	0.25	0.2	0.25	0.2	0.25	0.2

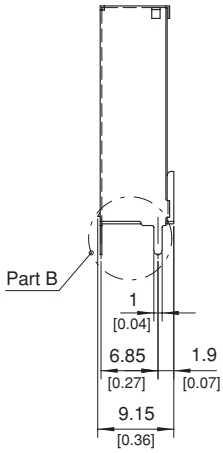
SPECIFICATIONS

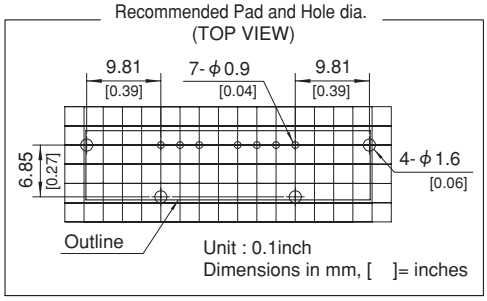
	MODEL		SUTW60512	SUTW60515	SUTW61212	SUTW61215	SUTW62412	SUTW62415	SUTW64812	SUTW64815
INPUT	VOLTAGE[V]		DC4.5 - 9		DC9 - 18		DC18 - 36		DC36 - 76	
	CURRENT[A]	*2	1.538typ	1.538typ	0.588typ	0.588typ	0.291typ	0.291typ	0.145typ	0.145typ
	EFFICIENCY[%]	*2	78typ	78typ	85typ	85typ	86typ	86typ	86typ	86typ
OUTPUT	VOLTAGE[V]		±12(+24)	±15(+30)	±12(+24)	±15(+30)	±12(+24)	±15(+30)	±12(+24)	±15(+30)
	CURRENT[A]		0.25	0.2	0.25	0.2	0.25	0.2	0.25	0.2
	LINE REGULATION[mV]		60max	75max	60max	75max	60max	75max	60max	75max
	LOAD REGULATION[mV]		600max	750max	600max	750max	600max	750max	600max	750max
	RIPPLE[mVp-p]	-20 to +55℃ *3	120max	120max	120max	120max	120max	120max	120max	120max
		-40 to -20℃ *3	150max	150max	150max	150max	150max	150max	150max	150max
	RIPPLE NOISE[mVp-p]	-20 to +55℃ *3	150max	150max	150max	150max	150max	150max	150max	150max
		-40 to -20℃ *3	200max	200max	200max	200max	200max	200max	200max	200max
	TEMPERATURE REGULATION[mV]	-20 to +55℃	150max	180max	150max	180max	150max	180max	150max	180max
		-40 to +55℃	240max	290max	240max	290max	240max	290max	240max	290max
	DRIFT[mV]	*4	50max	60max	50max	60max	50max	60max	50max	60max
	START-UP TIME[ms]		20max (Minimum input, Io=100%)							
	OUTPUT VOLTAGE ADJUSTMENT RANGE		Fixed (TRM pin open) ±5% adjustable by external VR							
	OUTPUT VOLTAGE SETTING[V] (±5%)		11.40 - 12.60	14.25 - 15.75	11.40 - 12.60	14.25 - 15.75	11.40 - 12.60	14.25 - 15.75	11.40 - 12.60	14.25 - 15.75
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION		Works over 105% of rating and recovers automatically							
	REMOTE ON/OFF		Provided (Negative logic L : ON, H : OFF)							
ISOLATION	INPUT-OUTPUT		AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)							
	INPUT-CASE		AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)							
	OUTPUT-CASE		AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)							
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE		-40 to +85℃, 20 - 95%RH (Non condensing) (Required Derating), 3,000m (10,000feet) max							
	STORAGE TEMP.,HUMID.AND ALTITUDE		-40 to +100℃, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max							
	VIBRATION		10 - 55Hz, 98.0m/s² (10G), 3minutes period, 60minutes each along X, Y and Z axis							
	IMPACT		490.3m/s² (50G), 11ms, once each along X, Y and Z axis							
SAFETY	AGENCY APPROVALS		UL60950-1, C-UL, EN60950-1							
OTHERS	CASE SIZE/WEIGHT		37.6×26.4×9.15mm [1.84×1.04×0.36 inches] (W×H×D) / 11g max							
	COOLING METHOD		Convection/Forced air							

*1 Output pins can be connected in series to make a 24V/30V output.
*2 Rated input 5V, 12V, 24V or 48V DC Io=100%
*3 Ripple and Ripple Noise is measured by using measuring board with capacitor with in 25mm from output pin terminals.
*4 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25℃.
* Parallel operation with other model is not possible.

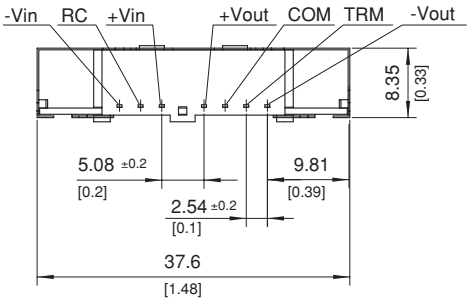
External view



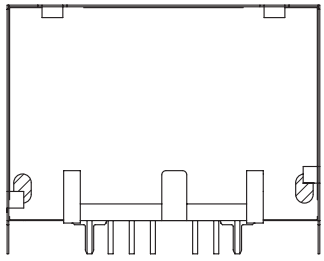




※ Tolerance ±0.5 [±0.02]
※ Dimensions in mm, [ ]= inches
※ Pin terminal thickness : 0.3±0.1 [0.012]
※ Pin terminal material : Copper alloy
※ Plating treatment of terminal : Lead free plating
※ Case thickness : 0.2±0.05 [0.008]
※ Case material : Brass
※ Plating treatment of case : Nickel plating
※ Please keep enough creepage distance with the pattern on PCB and other components.
※ Weight : 11g max

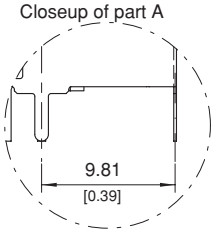


※ Back View

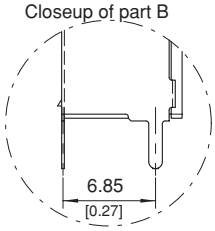


: Conduction Area

Closeup of part A



Closeup of part B

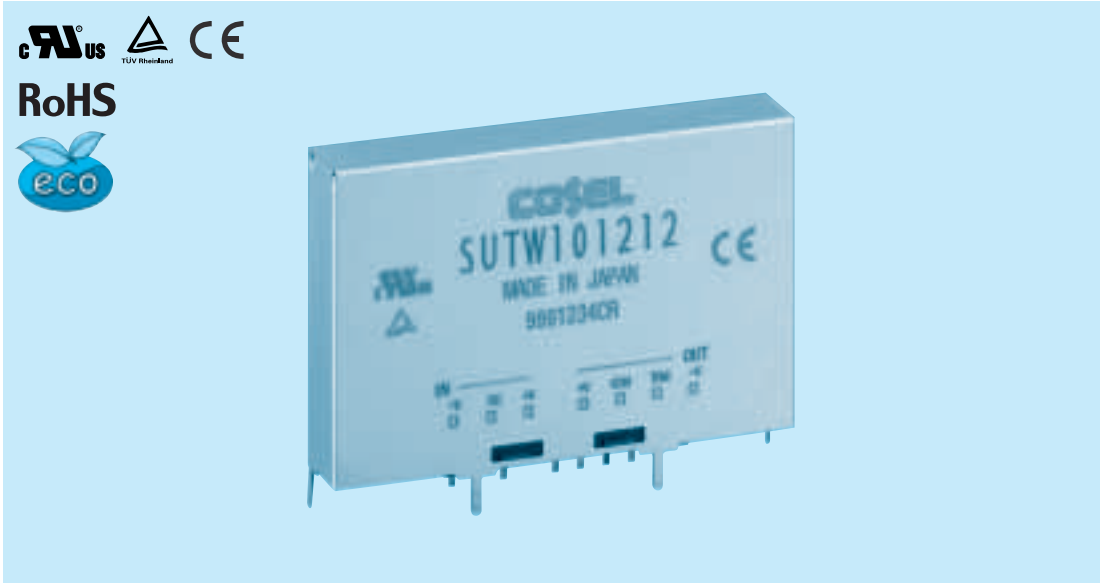


COSEL DC-DC Converters PCB Mount type

SUTW10

Ordering information

SUT	W	10	12	12	-□
①	②	③	④	⑤	⑥



①Series name
②Dual output
③Output wattage
④Input voltage
⑤Output voltage
⑥Optional
G :Capacitor between Input and Output is removed.

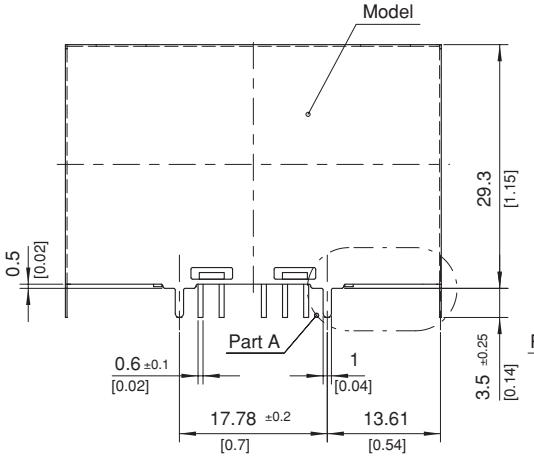
MODEL		SUTW100512	SUTW100515	SUTW101212	SUTW101215	SUTW102412	SUTW102415	SUTW104812	SUTW104815
MAX OUTPUT WATTAGE[W]		10.8	10.5	10.8	10.5	10.8	10.5	10.8	10.5
DC OUTPUT	VOLTAGE[V] ∗1	±12 or +24	±15 or +30	±12 or +24	±15 or +30	±12 or +24	±15 or +30	±12 or +24	±15 or +30
	CURRENT[A]	0.45	0.35	0.45	0.35	0.45	0.35	0.45	0.35

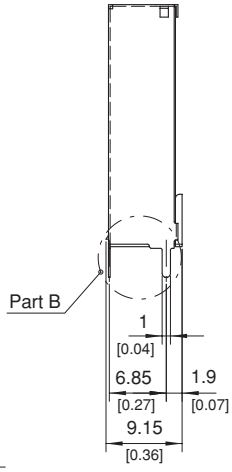
SPECIFICATIONS

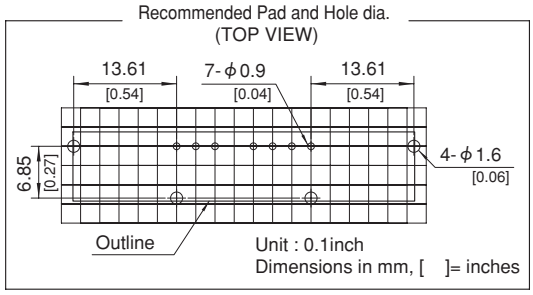
	MODEL		SUTW100512	SUTW100515	SUTW101212	SUTW101215	SUTW102412	SUTW102415	SUTW104812	SUTW104815
INPUT	VOLTAGE[V]		DC4.5 - 9		DC9 - 18		DC18 - 36		DC36 - 76	
	CURRENT[A]	∗2	2.51typ	2.44typ	1.05typ	1.02typ	0.523typ	0.509typ	0.262typ	0.254typ
	EFFICIENCY[%]	∗2	86typ	86typ	86typ	86typ	86typ	86typ	86typ	86typ
OUTPUT	VOLTAGE[V]		±12(+24)	±15(+30)	±12(+24)	±15(+30)	±12(+24)	±15(+30)	±12(+24)	±15(+30)
	CURRENT[A]		0.45	0.35	0.45	0.35	0.45	0.35	0.45	0.35
	LINE REGULATION[mV]		60max	75max	60max	75max	60max	75max	60max	75max
	LOAD REGULATION[mV]		600max	750max	600max	750max	600max	750max	600max	750max
	RIPPLE[mVp-p]	-20 to +55℃ ∗3	120max	120max	120max	120max	120max	120max	120max	120max
		-40 to -20℃ ∗3	150max	150max	150max	150max	150max	150max	150max	150max
	RIPPLE NOISE[mVp-p]	-20 to +55℃ ∗3	150max	150max	150max	150max	150max	150max	150max	150max
		-40 to -20℃ ∗3	200max	200max	200max	200max	200max	200max	200max	200max
	TEMPERATURE REGULATION[mV]	-20 to +55℃	150max	180max	150max	180max	150max	180max	150max	180max
		-40 to +55℃	240max	290max	240max	290max	240max	290max	240max	290max
	DRIFT[mV]	∗4	50max	60max	50max	60max	50max	60max	50max	60max
	START-UP TIME[ms]		20max (Minimum input, Io=100%)							
	OUTPUT VOLTAGE ADJUSTMENT RANGE		Fixed (TRM pin open) ±5% adjustable by external VR							
	OUTPUT VOLTAGE SETTING[V] (±5%)		11.40 - 12.60	14.25 - 15.75	11.40 - 12.60	14.25 - 15.75	11.40 - 12.60	14.25 - 15.75	11.40 - 12.60	14.25 - 15.75
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION		Works over 105% of rating and recovers automatically							
	REMOTE ON/OFF		Provided (Negative logic L : ON, H : OFF)							
ISOLATION	INPUT-OUTPUT		AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)							
	INPUT-CASE		AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)							
	OUTPUT-CASE		AC500V 1minute, Cutoff current = 10mA, DC500V 50MΩ min (20±15℃)							
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE		-40 to +85℃, 20 - 95%RH (Non condensing) (Required Derating), 3,000m (10,000feet) max							
	STORAGE TEMP.,HUMID.AND ALTITUDE		-40 to +100℃, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max							
	VIBRATION		10 - 55Hz, 98.0m/s² (10G), 3minutes period, 60minutes each along X, Y and Z axis							
	IMPACT		490.3m/s² (50G), 11ms, once each along X, Y and Z axis							
SAFETY	AGENCY APPROVALS		UL60950-1, C-UL, EN60950-1							
OTHERS	CASE SIZE/WEIGHT		45.2×29.3×9.15mm [1.78×1.15×0.36 inches] (W×H×D) / 14g max							
	COOLING METHOD		Convection/Forced air							

∗1 Output pins can be connected in series to make a 24V/30V output.
∗2 Rated input 5V, 12V, 24V or 48V DC Io=100%
∗3 Ripple and Ripple Noise is measured by using measuring board with capacitor with in 25mm from output pin terminals.
∗4 Drift is the change in DC output for an eight hour period after a half-hour warm-up at 25℃.
∗ Parallel operation with other model is not possible.

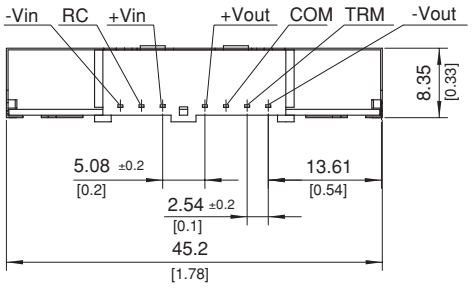
External view



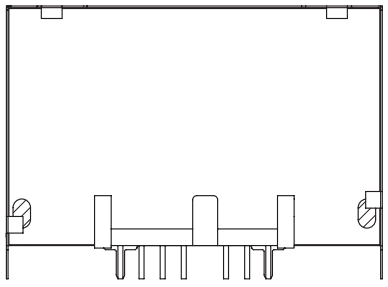




※ Tolerance ±0.5 [±0.02]
※ Dimensions in mm, [ ]= inches
※ Pin terminal thickness : 0.3±0.1 [0.012]
※ Pin terminal material : Copper alloy
※ Plating treatment of terminal : Lead free plating
※ Case thickness : 0.2±0.05 [0.008]
※ Case material : Brass
※ Plating treatment of case : Nickel plating
※ Please keep enough creepage distance with the pattern on PCB and other components.
※ Weight : 14g max



※ Back View



: Conduction Area