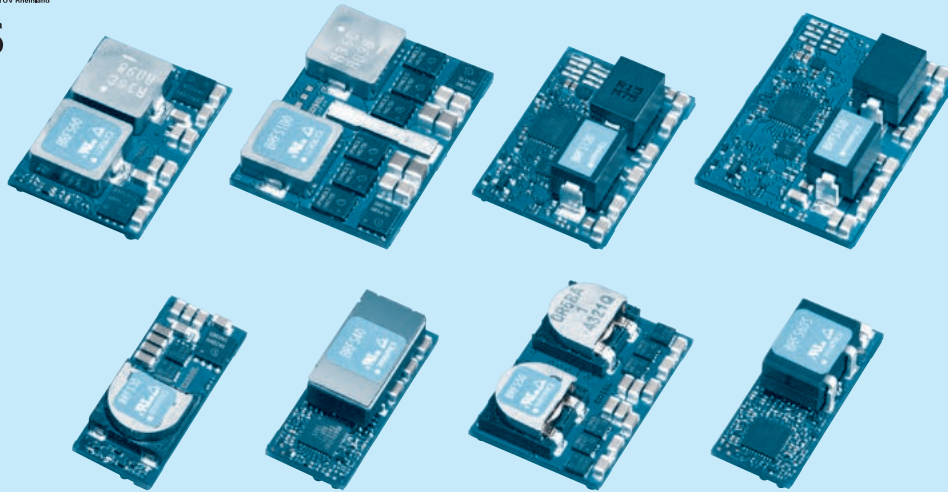


# BRFS

BRF S 50 L - □

① ② ③ ④ ⑤



- ① Series name
- ② Single output
- ③ Output current  
30:30A  
40:40A  
50:50A  
60:60A  
100:100A  
120:120A  
150:150A
- ④ Type  
Blank : Standard type  
L : Low profile type (only 50A)  
S : Small type (only 60A)
- ⑤ Optional  
R : Positive logic remote on/off  
I : POWERGOOD (only BRFS30/40/60S)  
\*Other models has POWERGOOD function normally.  
P : Parallel operation (only BRFS30/40/60S)  
Y1 : Fast transient response (only BRFS100)  
D : With switching frequency synchronization function (BRFS120 and BRFS150)  
L : High thermal dissipation (BRFS120 and BRFS150)

MODEL	BRFS30	BRFS40	BRFS50	BRFS50L	BRFS60	BRFS60S	BRFS100	BRFS120	BRFS150
MAX OUTPUT CURRENT[A]	30.0	40.0	50.0	50.0	60.0	60.0	100.0	120.0	150.0
DC OUTPUT	0.8 - 3.63V	0.6 - 2.0V	0.7 - 2.0V	0.7 - 2.0V	0.7 - 2.0V	0.6 - 2.0V	0.7 - 2.0V	0.6 - 1.8V	0.6 - 1.8V

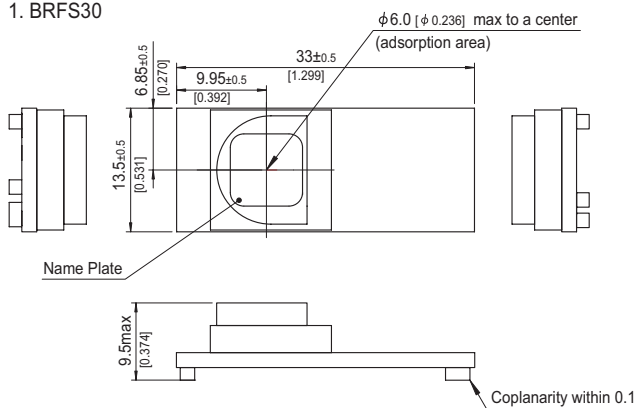
## SPECIFICATIONS

	MODEL	BRFS30	BRFS40	BRFS50	BRFS50L	BRFS60	BRFS60S	BRFS100	BRFS120	BRFS150	
INPUT	VOLTAGE[V]	DC4.5 - 14.0									
	CURRENT[A]	*1 3.41 typ	4.52 typ	5.68 typ	5.68 typ	6.82 typ	6.71 typ	11.24 typ	13.50 typ	16.90 typ	
	EFFICIENCY[%]	*1 88.0 typ	88.5 typ	88.0 typ	88.0 typ	88.0 typ	89.5 typ	89.0 typ	89.0 typ	89.0 typ	
OUTPUT	VOLTAGE[V]	*2 0.8 - 3.63	0.6 - 2.0	0.7 - 2.0	0.7 - 2.0	0.7 - 2.0	0.6 - 2.0	0.7 - 2.0	0.6 - 1.8	0.6 - 1.8	
	CURRENT[A]	30	40	50	50	60	60	100	120	150	
	LINE REGULATION[mV]	5									
	LOAD REGULATION[mV]	5									
	RIPPLE[mVp-p]	*3 25									
	RIPPLE NOISE[mVp-p]	*3 50									
	OUTPUT VOLTAGE SETTING [%Vo]	±1									
	DRIFT[mV]	*4 5									
	START-UP TIME[ms]	8.0 typ						12.0 typ *6	8.0 typ	12.0 typ *6	
	OUTPUT VOLTAGE ADJUSTMENT RANGE [V]	Adjustable by external resistor									
	0.8 - 3.63	0.6 - 2.0	0.7 - 2.0	0.7 - 2.0	0.7 - 2.0	0.6 - 2.0	0.7 - 2.0	0.6 - 1.8	0.6 - 1.8		
OUTPUT VOLTAGE TOTAL REGULATION [%Vo]*5	±3										
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION	Works over 105% of rating (auto recovery type)									
	REMOTE SENSING	Available (+S only)			Available			Available (+S only)		Available	
	REMOTE ON/OFF	Available Negative logic L:ON, H:OFF									
ISOLATION	INPUT-OUTPUT	non-isolated									
ENVIRONMENT	OPERATING TEMP., HUMID. AND ALTITUDE	-40 to +85°C, 20-95%RH (Non condensing) (Refer to DERATING CURVE) 3,000m (10,000feet) max									
	STORAGE TEMP., HUMID. AND ALTITUDE	-40 to +100°C, 20-95%RH (Non condensing), 9,000m (30,000feet) max									
	VIBRATION	10-55Hz, 49.0m/s <sup>2</sup> (5G), 3minutes period, 60minutes each along X, Y and Z axis									
	IMPACT	196.1m/s <sup>2</sup> (20G), 11ms, once each along X, Y and Z axis									
SAFETY	AGENCY APPROVALS	UL60950-1, C-UL (CSA60950-1), EN60950-1									
OTHERS	CASE SIZE/WEIGHT	33.0X9.5X13.5mm [1.3X0.37X0.53 inches] (WXHXD)/ 10g max	33.0X10.9X13.5mm [1.3X0.43X0.53 inches] (WXHXD)/ 12g max	33.0X9.5X22.9mm [1.3X0.37X0.9 inches] (WXHXD)/ 15g max	33.0X7.0X22.9mm [1.3X0.28X0.9 inches] (WXHXD)/ 12g max	33.0X8.0X22.9mm [1.3X0.31X0.9 inches] (WXHXD)/ 15g max	33.0X12.7X13.5mm [1.3X0.5X0.53 inches] (WXHXD)/ 12g max	38.0X8.5X27.7mm [1.5X0.33X1.09 inches] (WXHXD)/ 22g max	33.0X12.7X22.9mm [1.3X0.5X0.9 inches] (WXHXD)/ 14g max	38.0X13.8X27.7mm [1.5X0.54X1.09 inches] (WXHXD)/ 21g max	
	COOLING METHOD	Convection / Forced air									

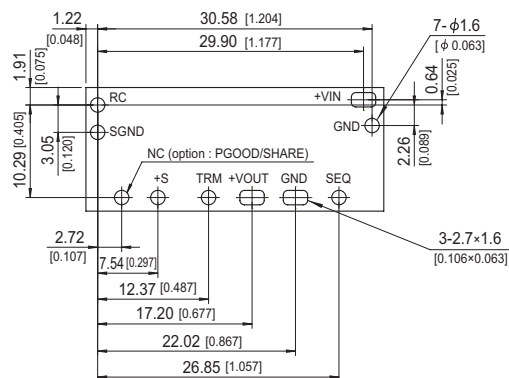
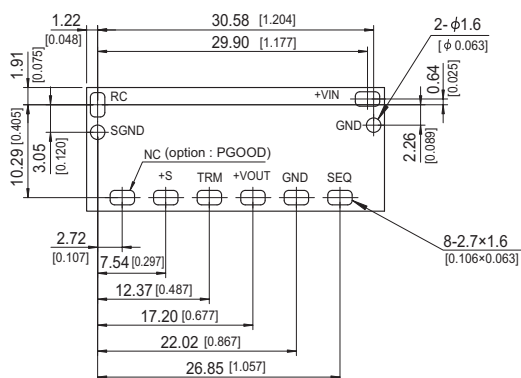
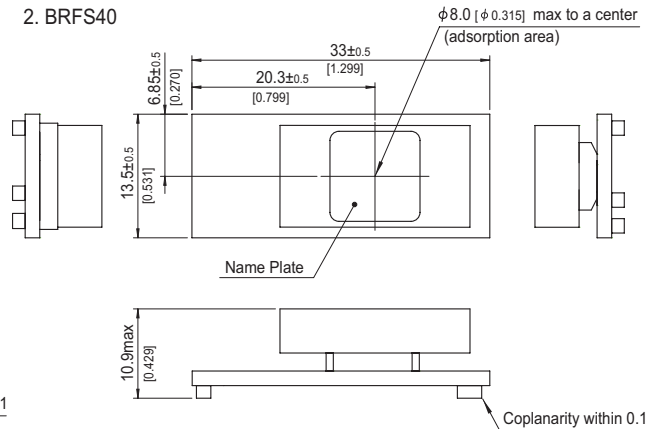
\*1 At rated input (DC12V) and rated output (1.2V) Ta=25°C.  
 \*2 Output voltage is adjusted to the minimum when TRM is opened.  
 \*3 Ripple and ripple noise is measured by using measuring board with ceramic capacitor at 50mm from output pin.  
 \*4 Drift is the change in DC output for an eight hour period after a half - hour warm - up at 25°C, with the input voltage held.  
 \*5 Output voltage setting is added line regulation and load regulation and temperature regulation used resistance of the 0.5% tolerance.  
 \*6 The start-up time when using the RC terminal is same as other BRFS.

External view

1. BRFS30

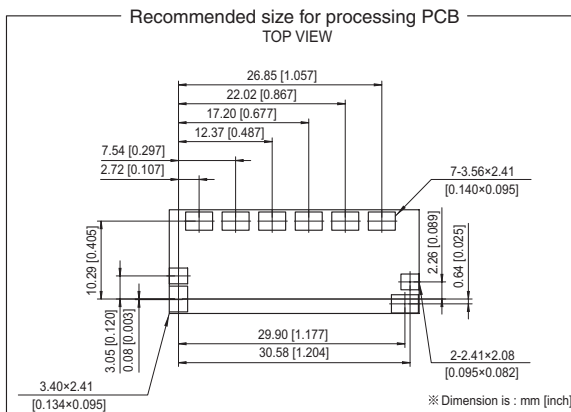


2. BRFS40



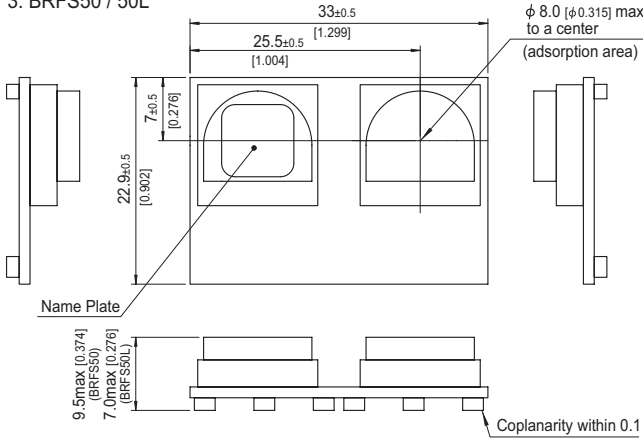
- ※ Tolerance :  $\pm 0.3$  [ $\pm 0.012$ ]
- ※ Dimensions in mm, [ ]=inches
- ※ Weight : 10g max
- ※ Terminal material : copper
- ※ Plating treatment of terminal : Lead free plating

- ※ Tolerance :  $\pm 0.3$  [ $\pm 0.012$ ]
- ※ Dimensions in mm, [ ]=inches
- ※ Weight : 12g max
- ※ Terminal material : copper
- ※ Plating treatment of terminal : Lead free plating

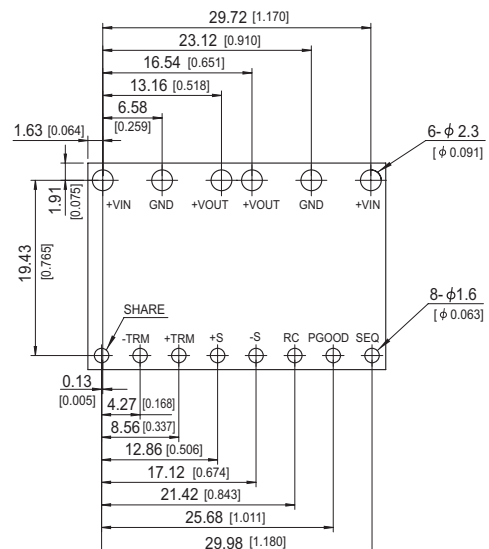
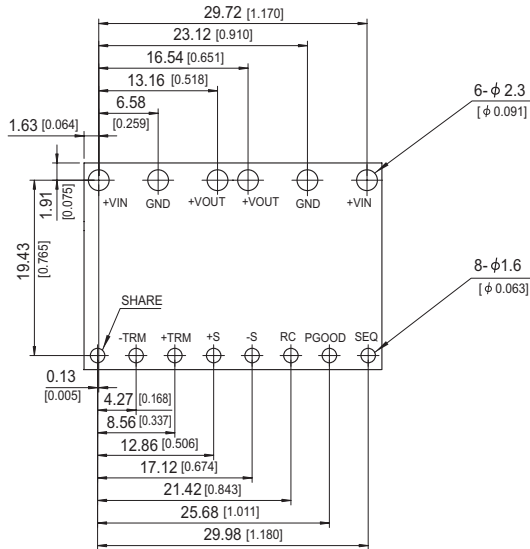
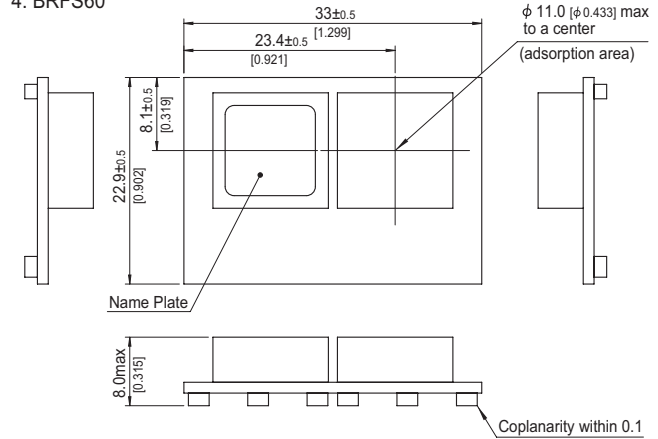


External view

3. BRFS50 / 50L

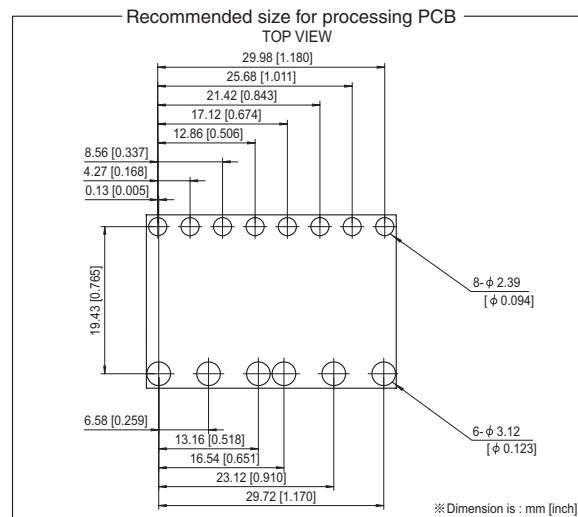


4. BRFS60



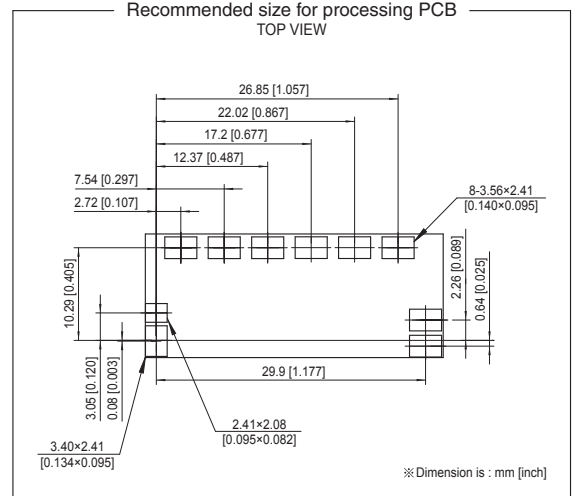
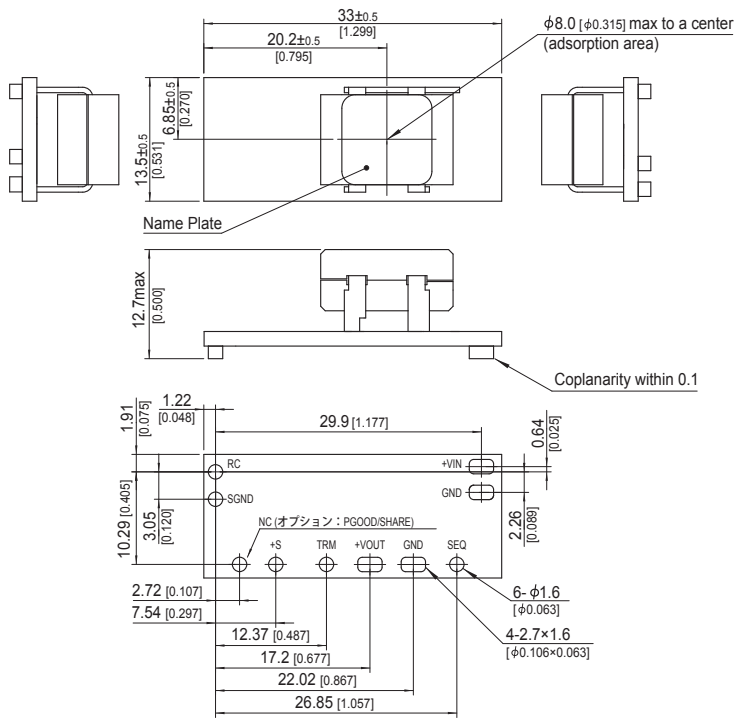
- ※ Tolerance :  $\pm 0.3 [\pm 0.012]$
- ※ Dimensions in mm, [ ]=inches
- ※ Weight : 15g max (BRFS50)  
12g max (BRFS50L)
- ※ Terminal material : copper
- ※ Plating treatment of terminal : Lead free plating

- ※ Tolerance :  $\pm 0.3 [\pm 0.012]$
- ※ Dimensions in mm, [ ]=inches
- ※ Weight : 15g max
- ※ Terminal material : copper
- ※ Plating treatment of terminal : Lead free plating



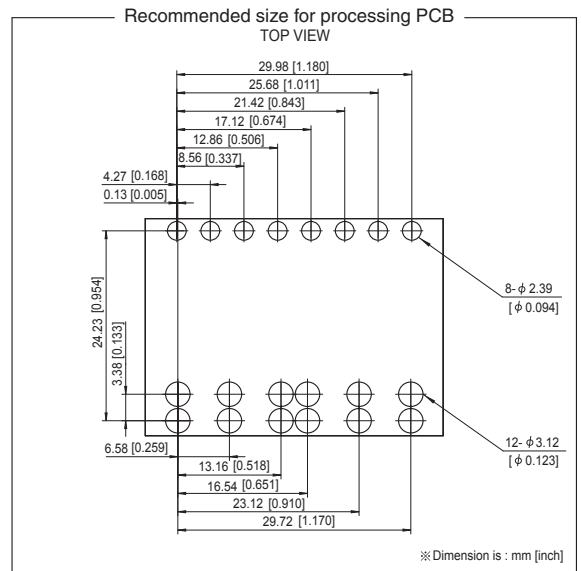
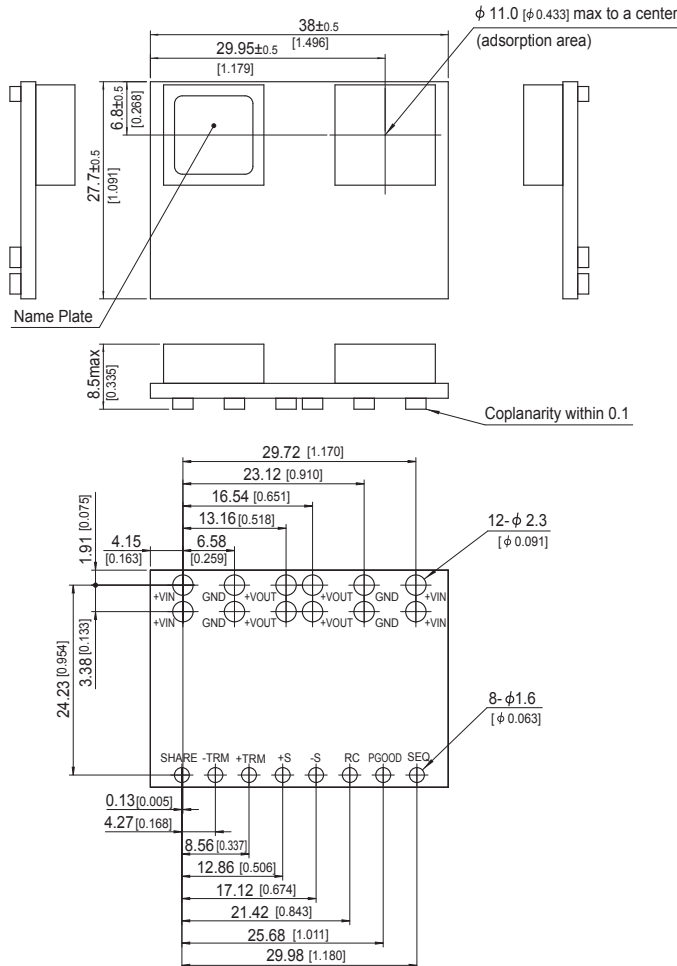
External view

5. BRFS60S



- ※ Tolerance :  $\pm 0.3$  [ $\pm 0.012$ ]
- ※ Dimensions in mm, [ ]=inches
- ※ Weight : 12g max
- ※ Terminal material : copper
- ※ Plating treatment of terminal : Lead free plating

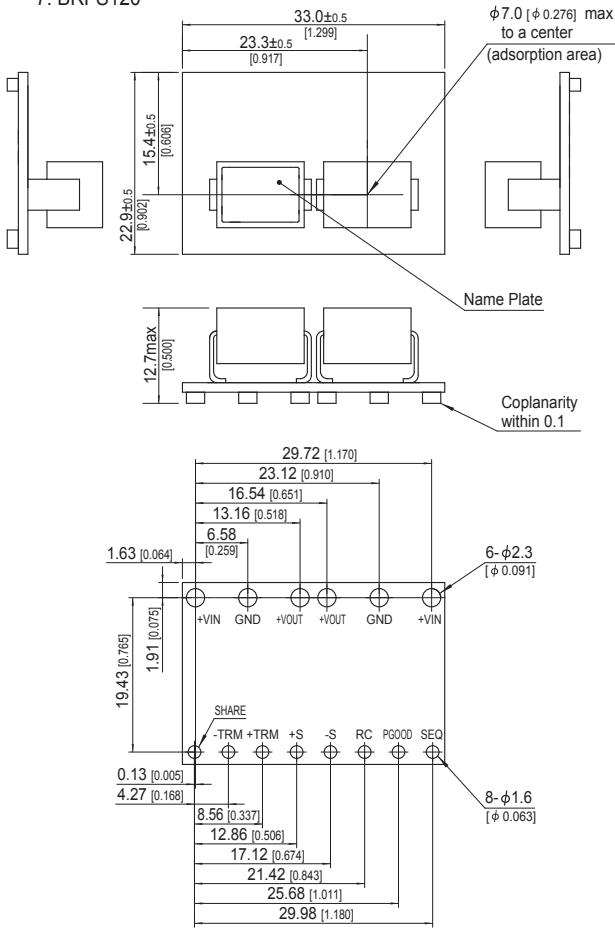
6. BRFS100



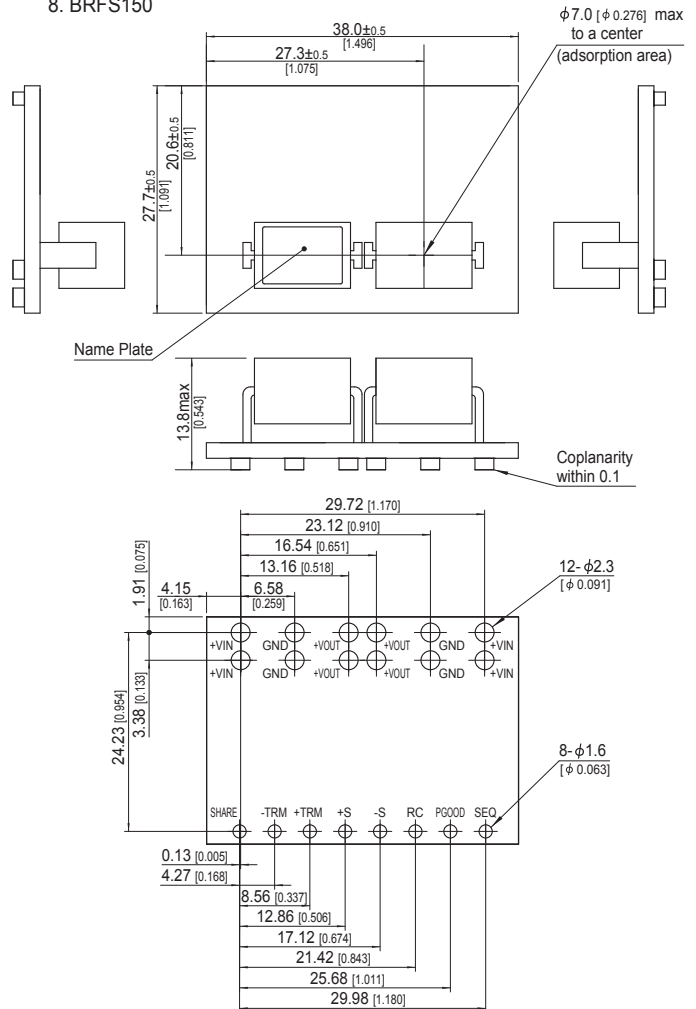
- ※ Tolerance :  $\pm 0.3$  [ $\pm 0.012$ ]
- ※ Dimensions in mm, [ ]=inches
- ※ Weight : 22g max
- ※ Terminal material : copper
- ※ Plating treatment of terminal : Lead free plating

External view

7. BRFS120

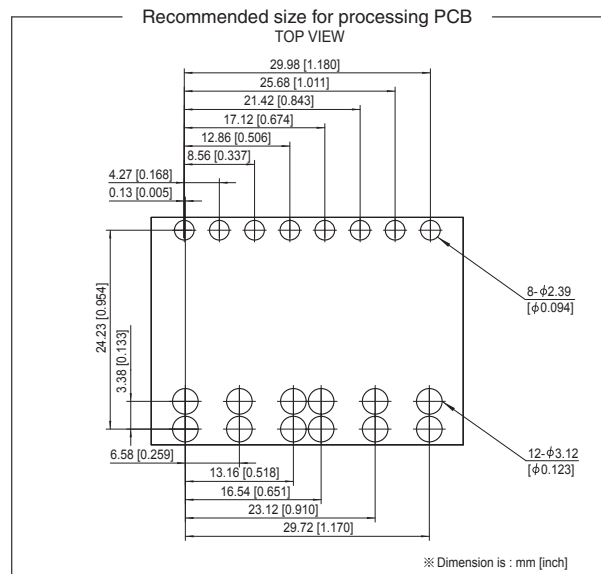
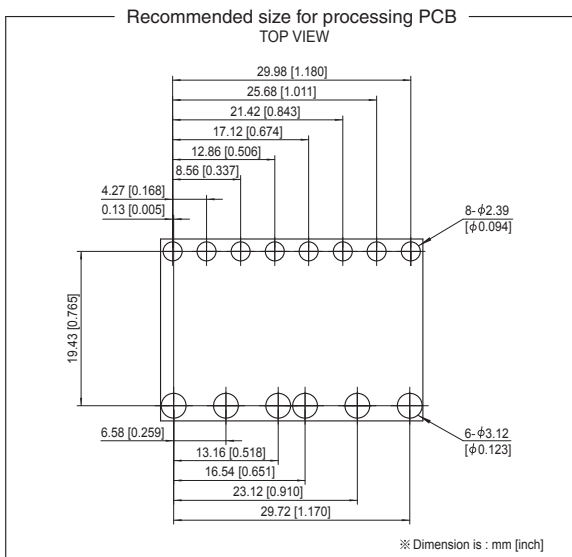


8. BRFS150



- ※ Tolerance :  $\pm 0.3$  [ $\pm 0.012$ ]
- ※ Dimensions in mm, [ ]=inches
- ※ Weight : 14g max
- ※ Terminal material : copper
- ※ Plating treatment of terminal : Lead free plating

- ※ Tolerance :  $\pm 0.3$  [ $\pm 0.012$ ]
- ※ Dimensions in mm, [ ]=inches
- ※ Weight : 21g max
- ※ Terminal material : copper
- ※ Plating treatment of terminal : Lead free plating





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