

/ Descriptions

BRCL4056SE ESOP-8

/

BRCL4056SE

BRCL4056SE

4.2V

1%

BRCL4056SE

2uA

/ Features

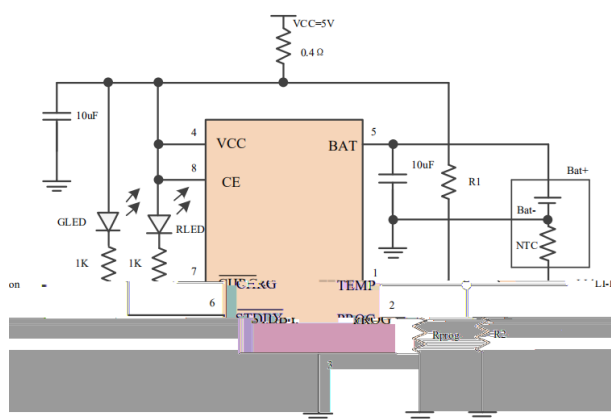
 $\pm$

/ Applications

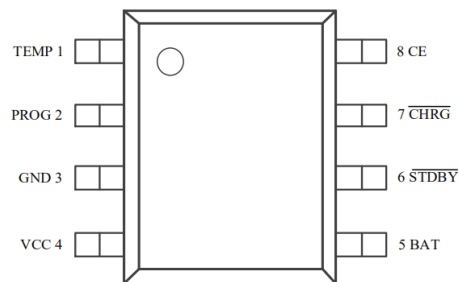
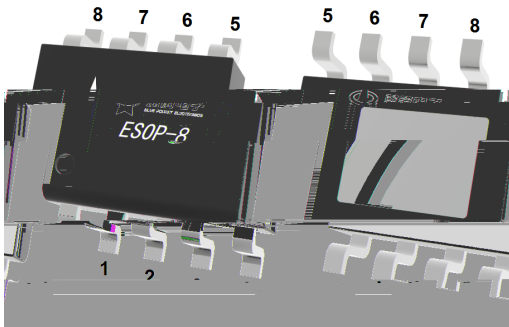
, MP3

USB

/ Application Circuit



BRCL4056SE



PIN Num.	Symbol	Function
		TEMP NTC TEMP 45% 80% TEMP 45% 80% TEMP
		PROG 0.1V 1.0V I _{BAT} = V _{PROG} /R _{PROG} 1000
	GND	
		VCC BAT 80mV BRCL4056SE BAT 2uA
		BAT 2uA BAT 4.2V
	STDBY	
	CHRG	
		CE TTL CMOS
		() PCB

PARAMETER	SYMBOL	RATINGS	UNITS
,			

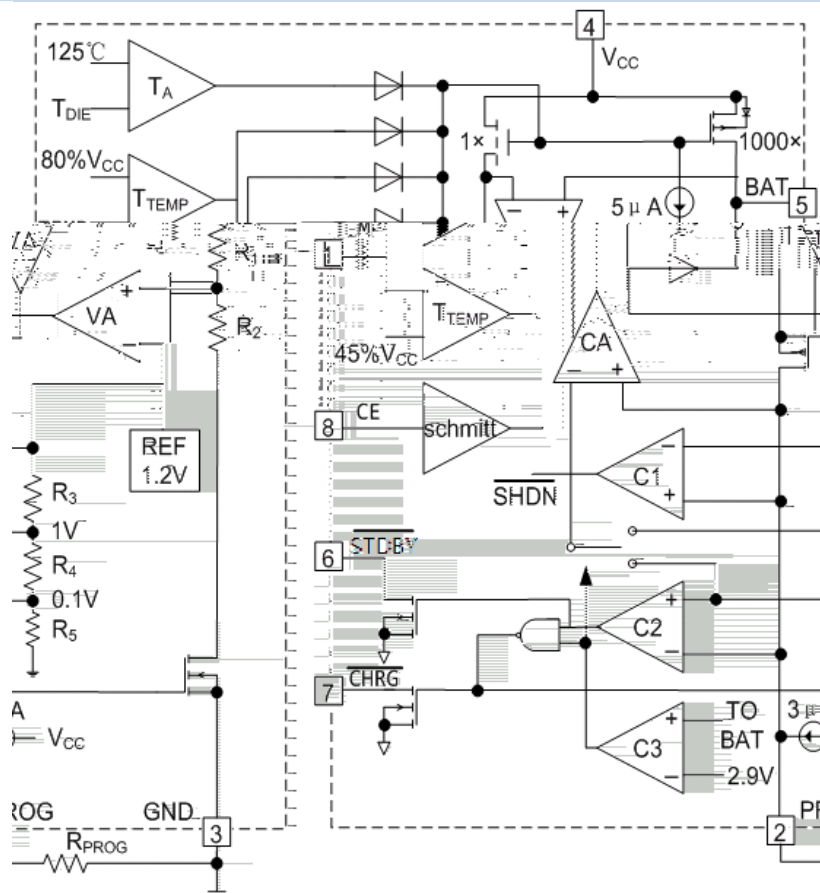
/ Electrical Characteristics(Ta=25℃)

PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNITS
	Δ					
						μ
	Δ					
						μ
				±	±	
						μ

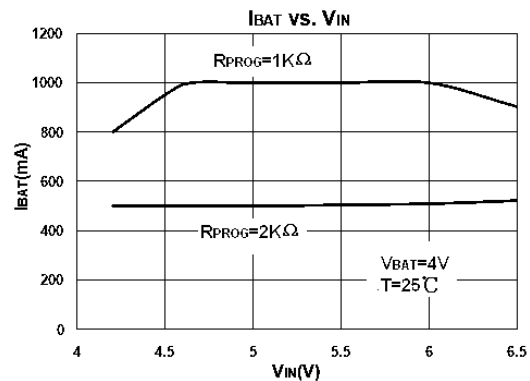
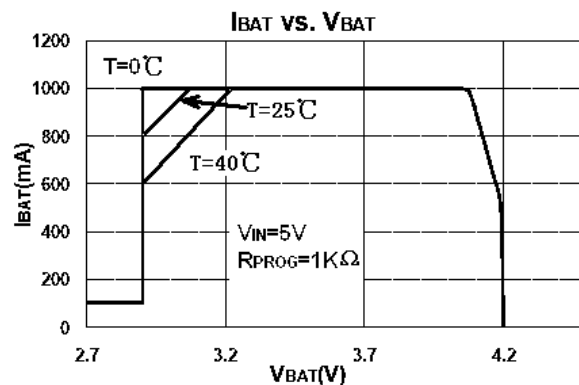
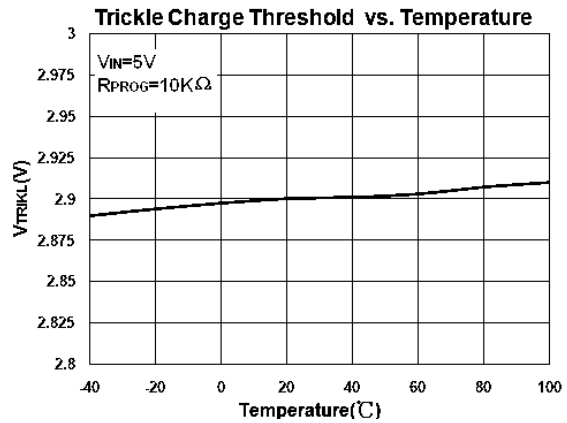
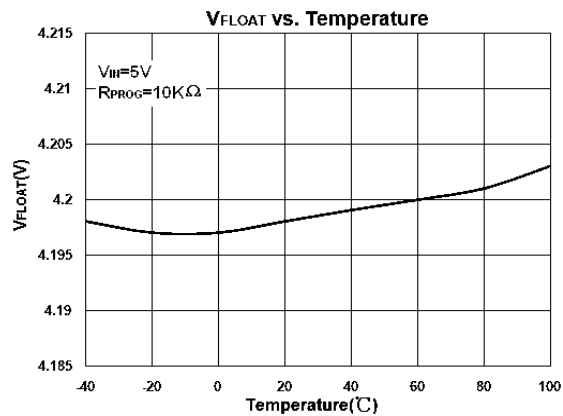
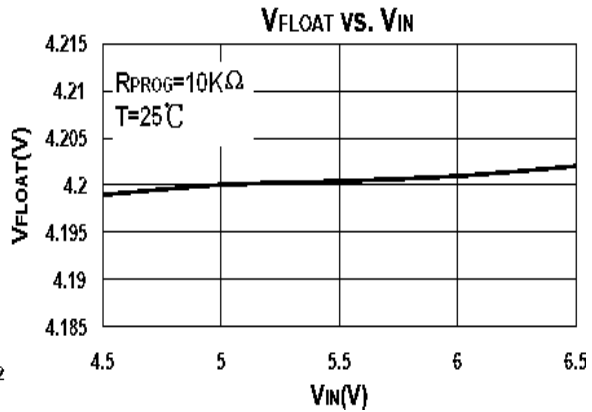
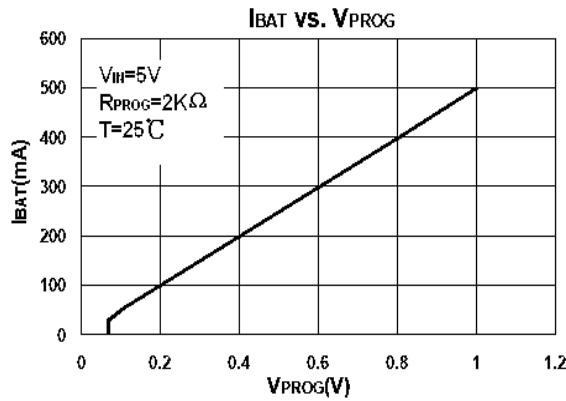
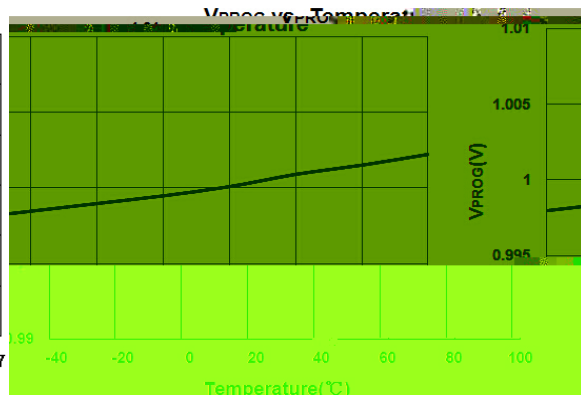
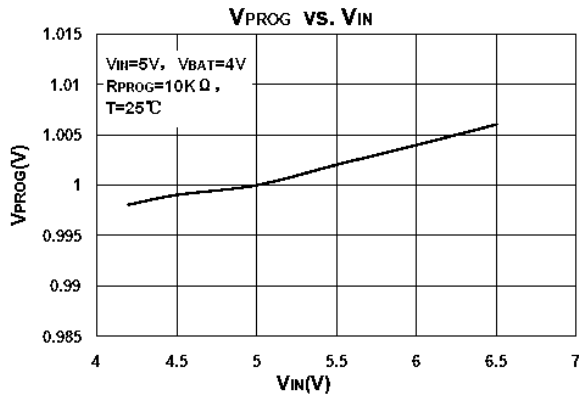
/ Electrical Characteristics(Ta=25°C)

PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNITS
	Δ	—				
						μ
						Ω

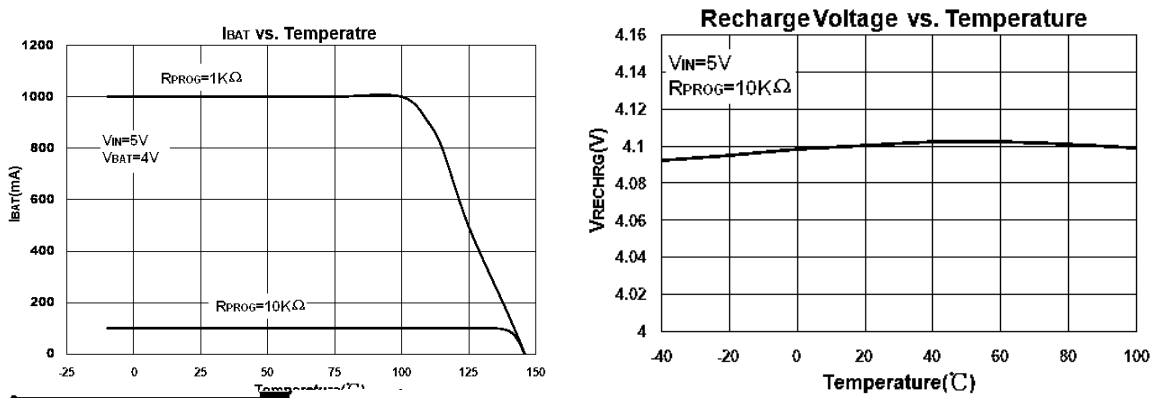
/ Principle block diagram



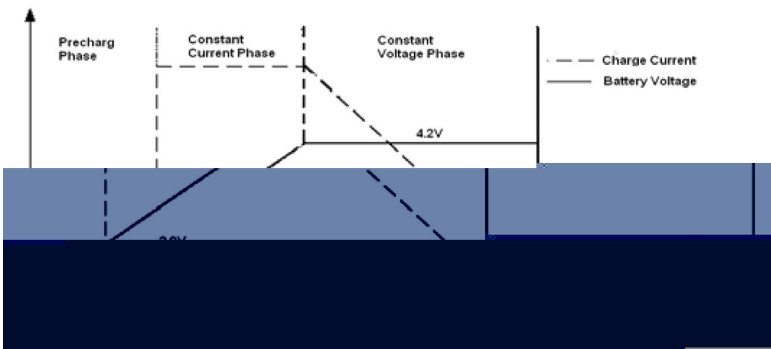
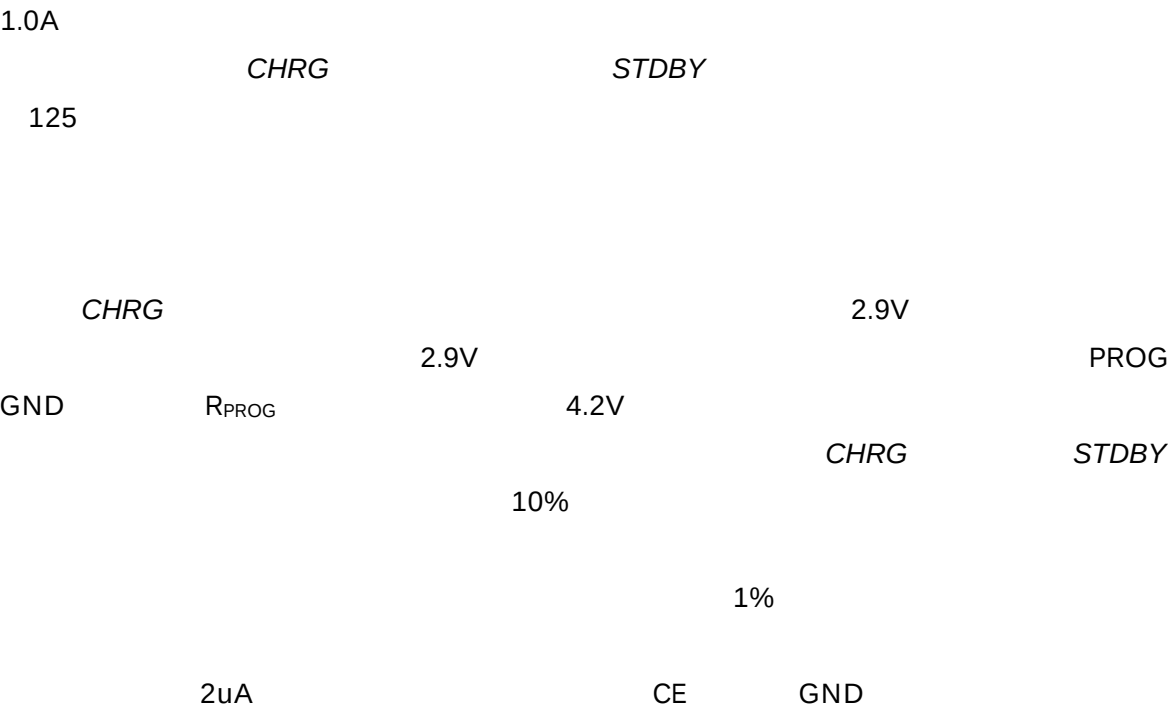
/ Electrical Characteristic Curve



/ Electrical Characteristic Curve



/ Description of the Principle



/ Description of the Principle

PROG

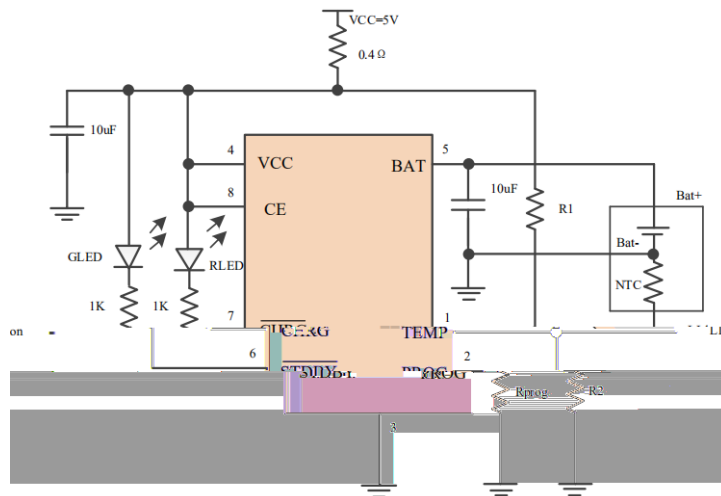
$$R_{\text{PROG}} \text{ k}\Omega = 1000 / I_{\text{BAT}} \text{ mA}$$

BRCL4056SE

TEMP

TEMP

NTC



BRCL4056SE TEMP

 $V_{\text{LOW}} \quad V_{\text{HIGH}}$

BRCL4056SE

 V_{LOW}
$$45\% \times V_{CC} \quad V_{HIGH}$$
$$80\% \times V_{CC}$$

TEMP

$$V_{TEMP} < V_{LOW}$$
$$V_{TEMP} > V_{HIGH}$$

TEMP

 V_{TEMP} $V_{\text{LOW}} \quad V_{\text{HIGH}}$

TEMP

R1 R2

$$T_L \quad T_H \quad T_L \quad T_H)$$

NTC

 R_{TL} T_L R_{TH}
$$T_H$$
$$R_{TL} \quad R_{TH}$$
$$T_H$$

TEMP

•

•

$$\frac{R_2 // R_{TH}}{R_{TH} + R_2} \approx \frac{R_2}{R_2 + R_{TH}}$$

 T_L

TEMP

•

•

$$V_{TEMP1} = \frac{R_2 // R_{TL}}{R_1 + R_2 // R_{TL}} \times V_{IN}$$

/ Description of the Principle

$V_{\text{TEMPL}}=V_{\text{HIGH}}=K2*V_{\text{IN}} \quad K2=0.8$
 $V_{\text{TEMPH}}=V_{\text{LOW}}=K1*V_{\text{IN}} \quad K1=0.45$

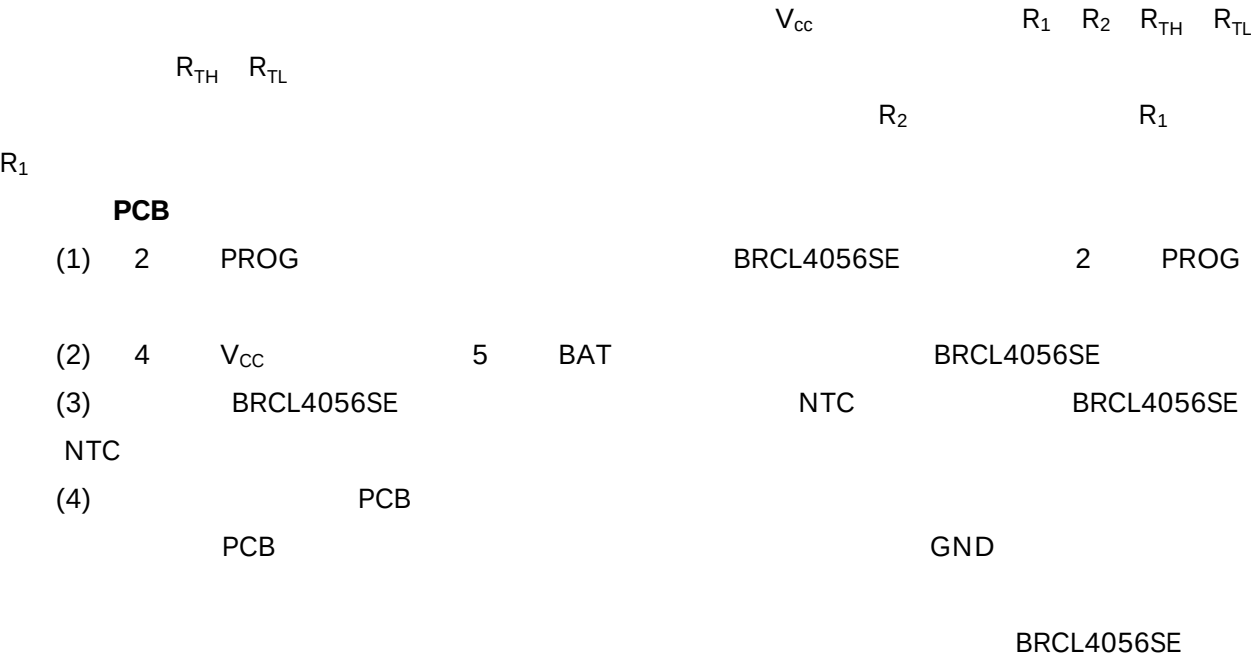
$$R1=\frac{R_{TL}R_{TH}(K_2-K_1)}{(R_{TL}-R_{TH})K_1K_2}$$

$$R2=\frac{R_{TL}R_{TH}(K_2-K_1)}{(R_{TH}-R_{TL})K_1K_2}$$

PTC :

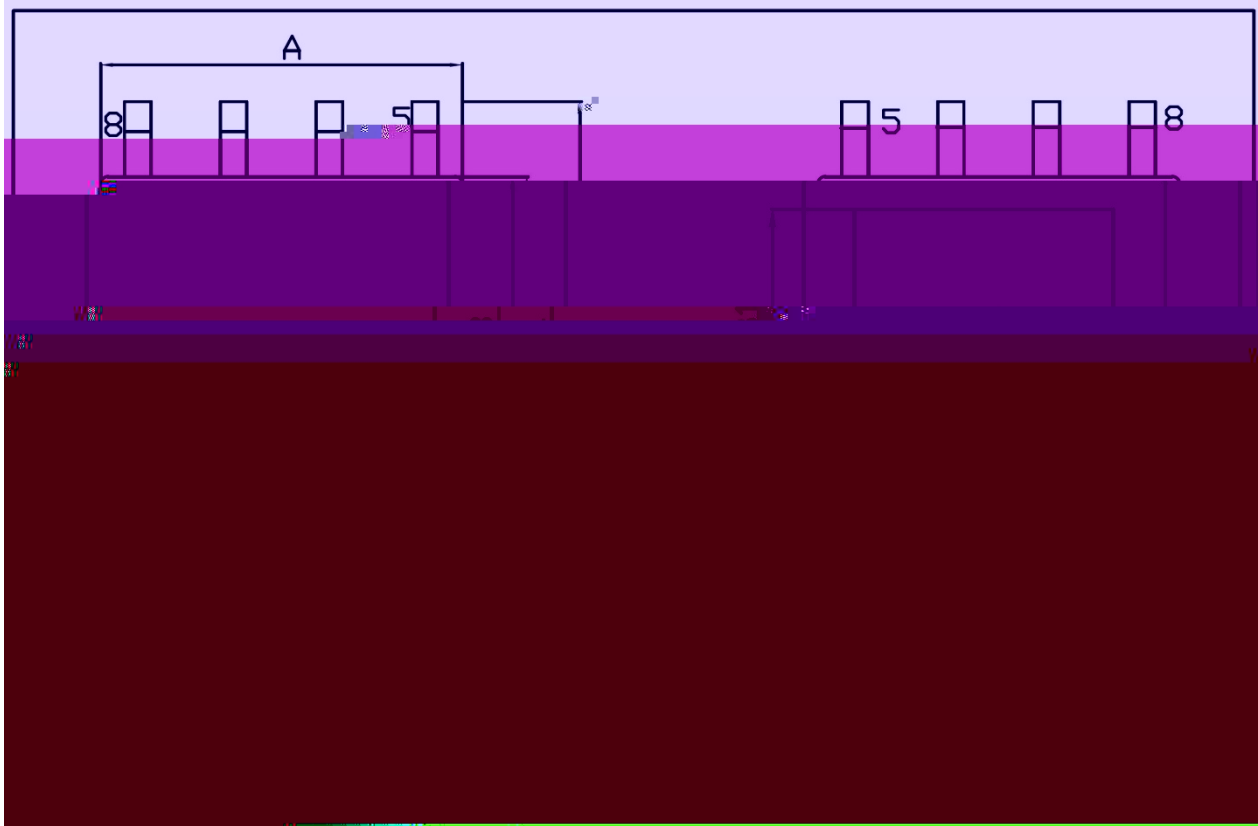
$$R1=\frac{R_{TL}R_{TH}(K_2-K_1)}{(R_{TH}-R_{TL})K_1K_2}$$

$$R2=\frac{R_{TL}R_{TH}(K_2-K_1)}{R_{TH}(K_1-K_1K_2)-R_{TL}(K_2-K_1K_2)}$$

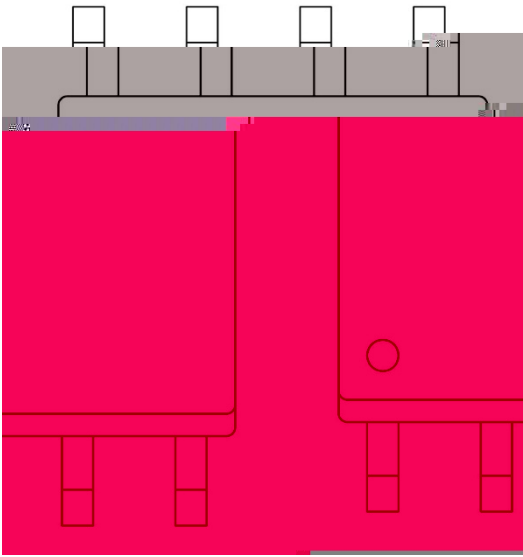


ESOP-8

Unit:mm

[illegible]

BRCL4056SE



BRCL4056SE