
E I F BA FGBEL

NOTE: Page numbers for previous revisions may differ from page numbers in the current version.

- Revision 1.0: Released to Market
- Revision 1.3: Update Iq in page1 and correct TYP in EC table
- Revision 1.4: Update PACKAGE INFORMATION (SOT563)
- Revision 1.5: Update DEVICE ORDER INFORMATION
- Revision 1.6: Update ABS T_J max and add MSL information

I BE E A BE G BA

SCT2220TVAR	Tape & Reel	5000	2220	6.52 re	
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GE E G E FG F

$V_{IN}=12V$, $T_J=-40\text{ }^{\circ}\text{C}\sim 125\text{ }^{\circ}\text{C}$, typical values are tested under $25\text{ }^{\circ}\text{C}$.

V_{IN}	Operating input voltage		4.2	17
V_{IN_UVLO}	Input UVLO	V_{IN} rising	3.9	4.15
	Hysteresis		300	
I_{SD}	Shutdown current	EN=0, No load, $V_{IN}=12V$	1.5	5
I_Q	Quiescent current	EN=2V, No load, No switching. $V_{IN}=12V$. BST-SW=5V	135	

enWSnBT/F3 9 Tf1 0 0 1 504.1 569.38 33ETQ EMC /Span /MCID 126/Lang (en-US)>

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The SCT2220 device is 4.2-17V

In each switching cycle, the inductor current is sensed by monitoring the low-side MOSFET during the OFF period. When the voltage between GND pin and SW pin is lower than the over current threshold voltage, the OCP will be triggered and the controller keeps the OFF state. A new switching cycle will begin only when the measured voltage is higher than limit voltage. If output loading continues to increase, output will dropped below the UVP, and SS pin is discharged such that output is 0V. Then the device will count for 7 cycles of soft-start time for hiccup waiting time and restart normally after 7 cycles' soft-start period.

The SCT2220 features external programmable output voltage by using a resistor divider network R1 and R2 as shown in the typical application circuit Figure 8. Use equation (8) to calculate the resistor divider values.

$$R_1 = \frac{(V_{OUT} - V_{REF}) \times R_2}{V_{REF}} \quad (8)$$

V _{OUT}	V _{REF}	R ₁	V _{REF}	R ₂	R ₁ × R ₂	R ₁ + R ₂
1.2	4.99	10	2.2	10	2 × 22	100
1.5	8.66	10	2.2	10	2 × 22	100
1.8	12.4	10	3.3	10	2 × 22	100
2.5	21.5	10	3.3	10	2 × 22	100
3.3	31.6	10	3.3	10	2 × 22	100
5.0	52.3	10	4.7	10	2 × 22	100



The regulator could suffer from instability and noise problems without carefully layout of PCB. Radiation of high-

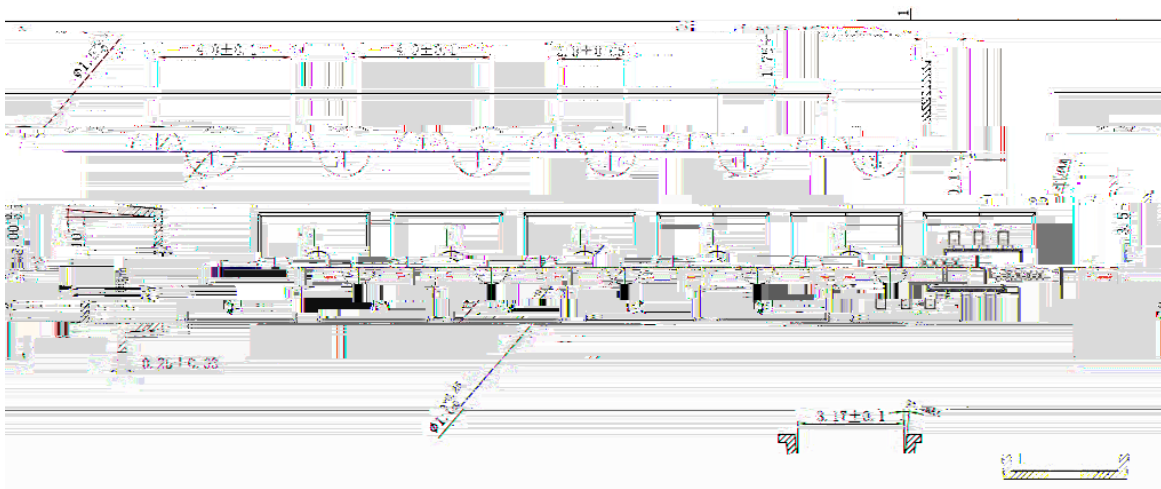
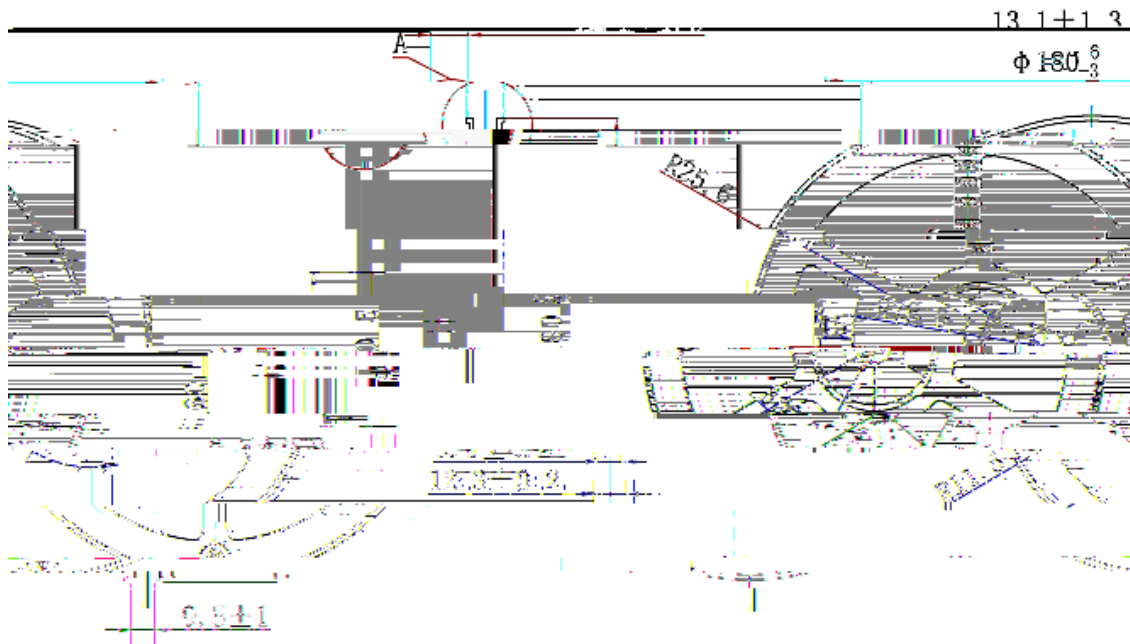
C

A BE

G B A F B G



G C A E A BE G BA



G C A E A BE G BA

