

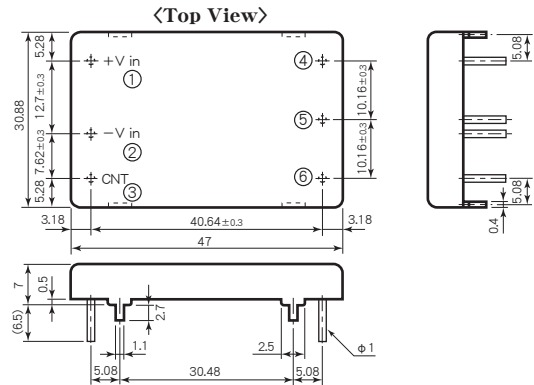
# SQT SERIES

## 10~15W DC/DC CONVERTERS Single Output & Dual Outputs



H7×W31×L47 (mm)

### Pin Outs & Dimensions (±0.5mm)

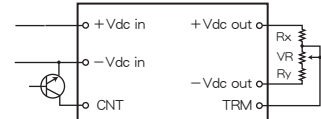


#### Pin Outs

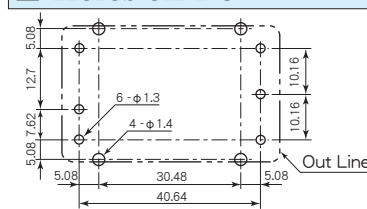
Single Output	Dual Outputs
① +Vdc in	① +Vdc in
② -Vdc in	② -Vdc in
③ CNT	③ CNT
④ +Vdc out	④ +Vdc out
⑤ -Vdc out	⑤ COM
⑥ TRM	⑥ -Vdc out

#### Application

ON/OFF Control and Vout Adjustment (Single Output)



### Holes on PCB (Top View)



Vout (V)	VR (Ω)	Rx (Ω)	Ry (Ω)
3.3V	50k	13k	0
5V	50k	3k	0
5.2V	50k	3k	0
6V	50k	6.8k	0
12V	50k	43k	0
15V	50k	62k	0
24V	50k	150k	0

### Selection Guide

Table 1

Model Number	Input Volt. (Range) (V. DC)	Output Voltage (V. DC)	Output Current (A)	Efficiency 20% Load (typ.)(%)	Efficiency 80% Load (typ.)(%)
SQT 5-3.3S 3A	5 (4.5~9)	3.3	3	81	85
SQT 5- 5S2.2A		5	2.2	81	85
SQT 5-5.2S2.1A		5.2	2.1	81	85
SQT 5- 6S1.9A		6	1.9	83	85
SQT 5- 12S 1A		12	1	84	85
SQT 5- 15S0.8A		15	0.8	84	85
SQT 5- 24S0.5A		24	0.5	84	85
SQT 5- 12D0.5A		±12	±0.5	86	86
SQT 5- 15D0.4A		±15	±0.4	86	85
SQT12-3.3S3.6A		12 (8~18)	3.3	3.6	80
SQT12- 5S2.6A	5		2.6	82	86
SQT12-5.2S2.5A	5.2		2.5	82	85
SQT12- 6S2.3A	6		2.3	85	86
SQT12- 12S1.3A	12		1.3	85	87
SQT12- 15S 1A	15		1	85	88
SQT12- 24S0.6A	24		0.6	84	87
SQT12- 12D0.6A	±12		±0.6	85	87
SQT12- 15D0.5A	±15		±0.5	84	87
SQT24-3.3S3.6A	24 (16~36)		3.3	3.6	82
SQT24- 5S2.6A		5	2.6	82	87
SQT24-5.2S2.5A		5.2	2.5	83	87
SQT24- 6S2.3A		6	2.3	83	87
SQT24- 12S1.3A		12	1.3	86	88
SQT24- 15S 1A		15	1	84	87
SQT24- 24S0.6A		24	0.6	84	87
SQT24- 12D0.6A		±12	±0.6	85	87
SQT24- 15D0.5A		±15	±0.5	86	87
SQT48-3.3S3.6A		48 (32~72)	3.3	3.6	80
SQT48- 5S2.6A	5		2.6	82	87
SQT48-5.2S2.5A	5.2		2.5	82	87
SQT48- 6S2.3A	6		2.3	82	87
SQT48- 12S1.3A	12		1.3	84	87
SQT48- 15S 1A	15		1	84	87
SQT48- 24S0.6A	24		0.6	84	87
SQT48- 12D0.6A	±12		±0.6	84	87
SQT48- 15D0.5A	±15		±0.5	84	87

※ 上記仕様以外にも対応可能ですのでお問い合わせ下さい。  
Please consult with us about other specification.

### Features

- 7mm in Height
- High Efficiency 78~87%
- Built-in Input Filter
- Wide Input Voltage Range
- Input-Output Isolation AC1500V
- Low No Load Current
- 5 Sided Metal Shielding
- Remote ON/OFF Control
- Operating Ambient Temperature -40°C~+85°C
- Adjustable Output Voltage ±5% (Single Output Only)
- Max. Case Temperature +100°C
- Conformity to RoHS Directive
- Not built-in aluminum and tantalum electrolytic capacitor
- 高さ7mm
- 高効率 78~88%
- 入力フィルタ内蔵
- 広範囲な入力電圧
- 入出力間絶縁 AC1500V
- 無負荷電流が少ない
- 5面メタルシールド
- リモートON/OFFコントロール
- 動作周囲温度 -40°C~+85°C
- 出力電圧調整可能 ±5% (単出力のみ)
- 最大ケース温度 +100°C
- RoHS指令対応
- アルミ電解コンデンサ及びタンタルコンデンサ不使用

### Specifications

#### Input

- Input Voltage, Range
- Input Current (No Load)

DC5, 12, 24, 48V (See Table 1)  
5V : 30mA typ.  
12V : 18mA typ.  
24V : 10mA typ.  
48V : 7mA typ.  
(3% Vin)Vp-p max.

- Reflected Input Ripple, Noise

#### Output

- Output Voltage, Current
- Output Voltage Accuracy
- Output Voltage Adjustment
- Remote ON/OFF Control

See Table 1  
Single : ±2%  
Dual : ±3%  
±5% (Used trimmer) (Single Output only)  
ON : Short or 0~0.8V  
OFF : Open or 2~10V (Between pin ②~③)

- Efficiency
- Line Regulation
- Load Regulation

See Table 1  
0.3% max. (at Vin Range)  
Single : ±0.5% max. (0~100% Load)  
Dual : ±3% max. (10~100% Load)  
20mVp-p max.  
80mVp-p max. (0~20MHz)  
150mVp-p max. (0~100MHz)  
Built-in, Auto-restart (See Fig. 2)  
0.02%/°C max.

- Output Ripple
- Output Noise

- Short Circuit Protection
- Temperature Coefficient

#### General

- Operating Ambient Temp.
- Max. Case Temperature
- Storage Temperature
- Isolation Voltage

-40°C~+85°C (See Fig. 1)  
+100°C  
-55°C~+100°C  
AC1500V one minute  
(Input-Output-Case)

- Isolation Impedance

100MΩ min. (at DC1000V)  
(Input-Output-Case)

- Humidity
- MTBF

20~95% RH  
1,000,000H  
(Ta : 25°C, 80% Load, Nominal Vin)  
210kHz (±10%)

- Switching Frequency

#### Physical

- Weight
- Shock
- Vibration

30g max.  
490m/s<sup>2</sup> (11msec 3directions)  
10~55Hz 98m/s<sup>2</sup>  
(30minutes 3directions)  
5 Sided Steel Case

- Surface Structure
- Soldering Conditions

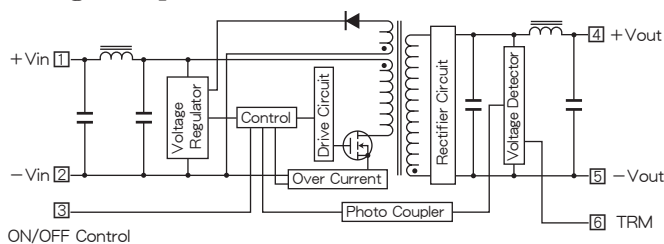
260°C, for 15 seconds max.  
360°C, for 5 seconds max.  
5 years

- Soldering iron
- Warranty

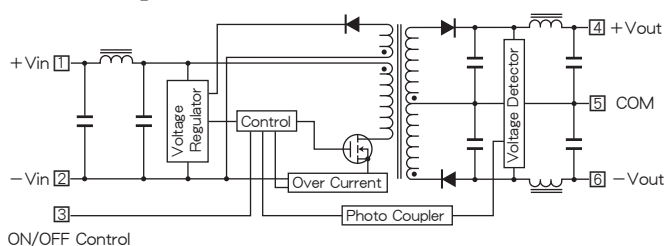
# SQT SERIES DATA SHEET

## Block Diagram

### Single Output



### Dual Outputs



## Characteristic Curves

Fig. 1 Derating Curve

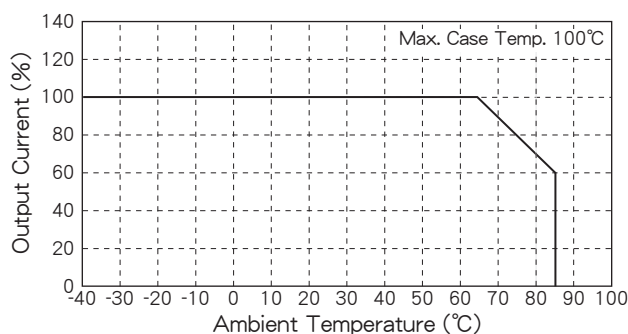


Fig. 2 Short Circuit Operating Area

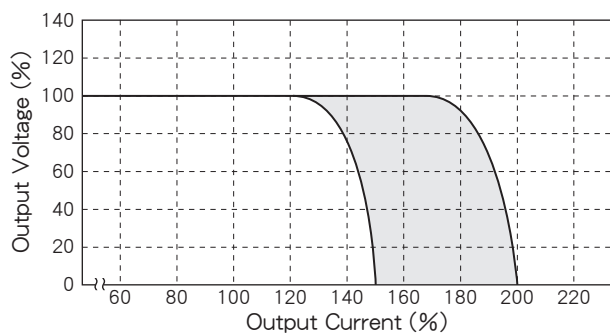


Fig. 3 Temperature Characteristic on Case Surface

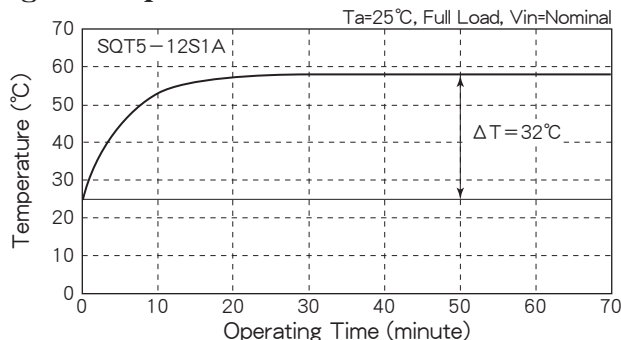


Fig. 4 Efficiency vs. Output Current

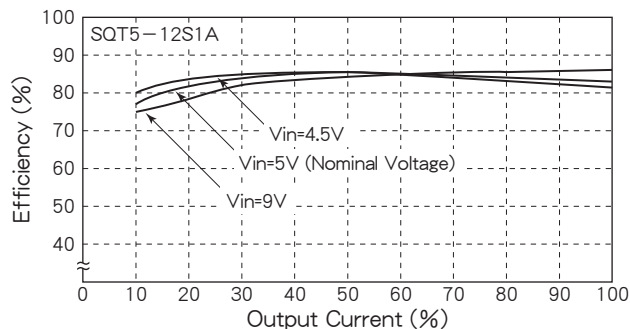


Fig. 5 Efficiency vs. Output Current

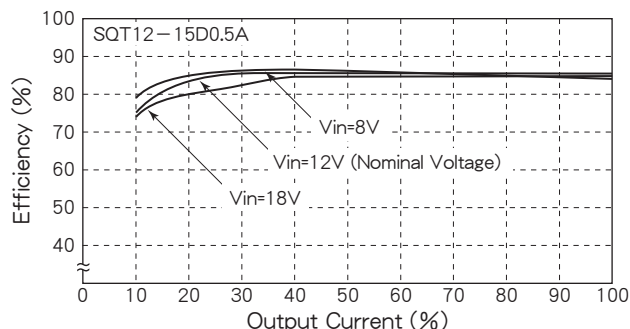


Fig. 6 Efficiency vs. Output Current

