

Product Character

- Multilayer Metal -Silicon Potential Structure.
- Low Leakage Current.
- High Current Capability, High Efficiency.
- High Junction Temperature Capability.
- RoHs Product.

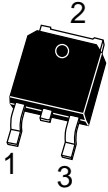
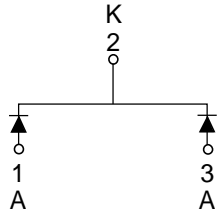
Primary Use

- Low Voltage High Frequency Switching Power Supply.
- Low Voltage High Frequency Invers Circuit.
- Low Voltage Continued Circuit and Protection Circuit.

Summarize

- SRT20100CS Device optimized for ultra-low forward voltage drop to maximize efficiency in Power Supply applications.

Equivalent Circuit



Package:TO-252-2L
SRT20100CS
SRT20100CS-HF
 HF=Halogen Free

Absolute Maximum Ratings

| Item | Symbol | Data | Unit |
|---|--------------------------------------|---------|------|
| Maximal Inverted Repetitive Peak Voltage | V_{RRM} | 100 | V |
| Average Rectified Forward Current (Rated VR-20Khz Square Wave) - 50% duty cycle | I_{FAV} | 20 | A |
| Forward Peak Surge Current(Rated Load 8.3 Half Mssine Wave-According to JEDEC Method) | I_{FSM} | 260×2 | A |
| Operating Junction Temperature | T_J | -40~150 | °C |
| Storage Temperature | T_{STG} | -40~150 | °C |
| Typical Thermal Resistance(per leg) | Package=TO-252-2L $R_{\theta JC}$ | 3 | °C/W |

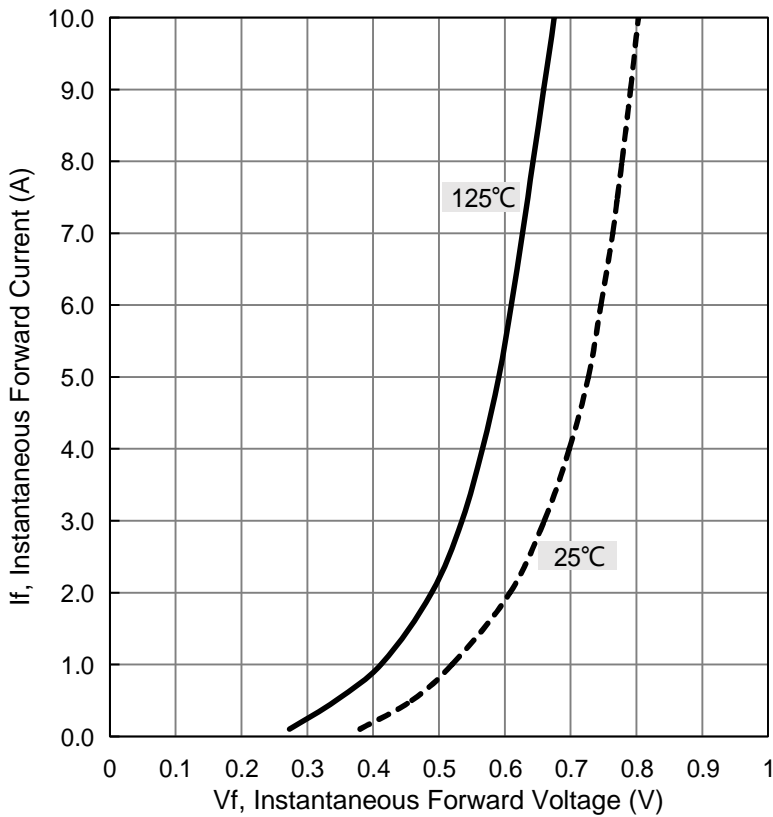
Electricity Character

| Item | Test Condition | | Value(min) | Value(typ) | Value(max) | Unit |
|-------|----------------------|---|------------|------------|------------|------|
| V_B | $T_J = 25^{\circ}C$ | $I_R = 1mA$ | 100 | --- | --- | V |
| I_R | $T_J = 25^{\circ}C$ | $V_R = 100V$ | --- | --- | 0.01 | mA |
| | $T_J = 125^{\circ}C$ | $V_R = 100V$ | --- | --- | 10.00 | mA |
| V_F | $T_J = 25^{\circ}C$ | $I_F = 10A$ ($I_{FAV} = 10A \times 2$) | --- | 0.8 | 0.85 | V |
| | $T_J = 125^{\circ}C$ | | --- | --- | 0.75 | V |

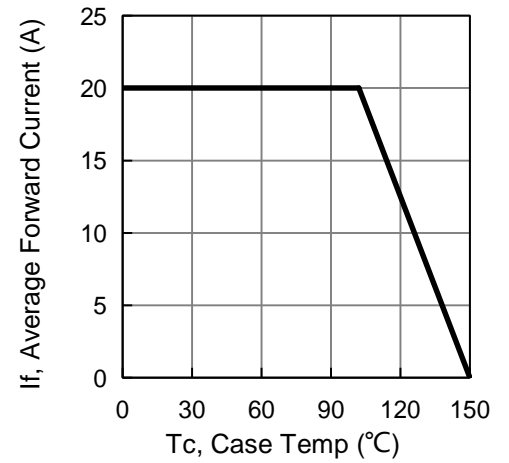


Characteristic Curves

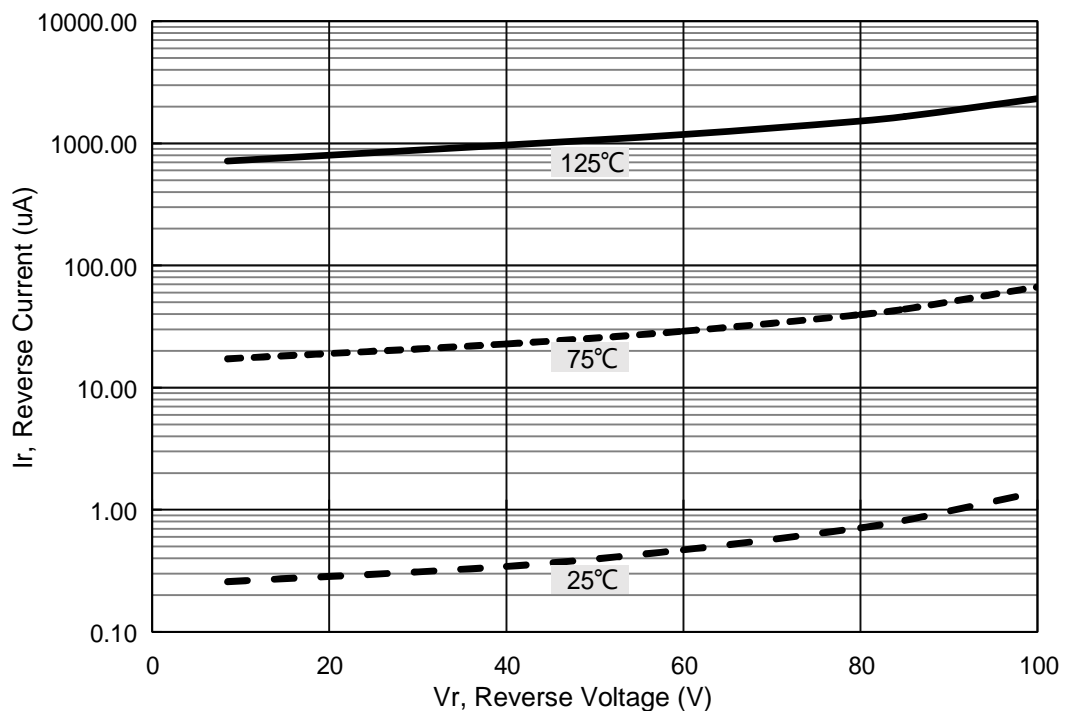
The forward voltage and forward current curve



Current derating curve, per element

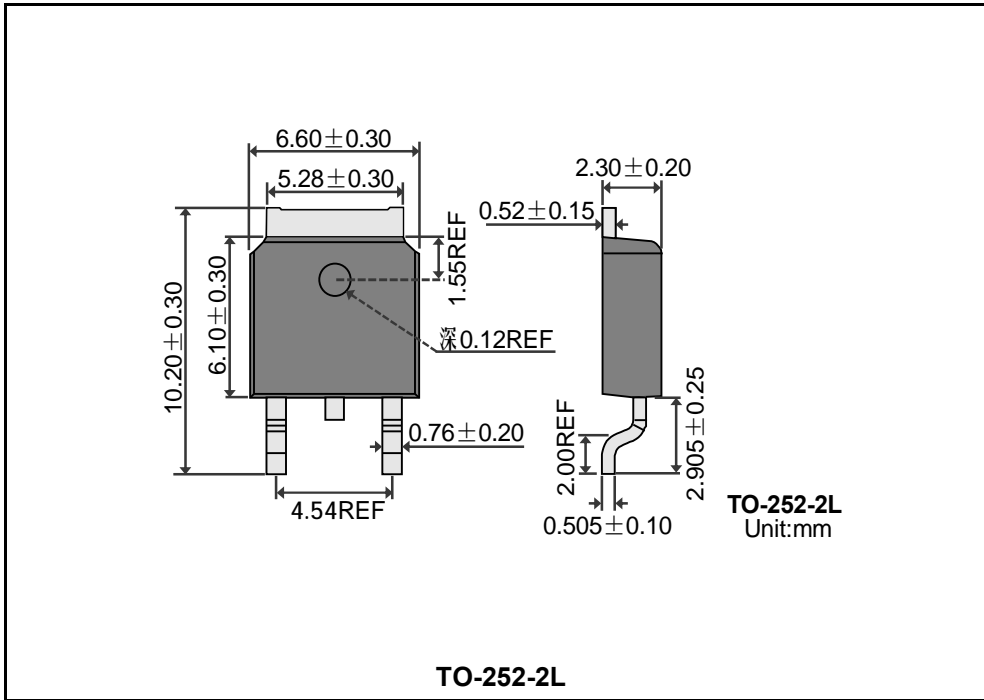


The reverse leak current and the reverse voltage (single-device) curve.

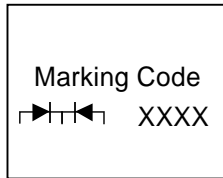




Package Outline Dimensions



Marking Information



“Marking Code”= The Following
 “XXXX”= Date Code Marking

| Package | Marking Code | Part Number |
|-----------|--------------|---------------|
| TO-252-2L | SRT20100CS | SRT20100CS |
| | | SRT20100CS-HF |

Packing Information

| Packaging | Package | Part Number | Quantity | Size |
|-----------|-----------|-------------|--------------|---------------|
| Tube | TO-252-2L | Tube | 80 pieces | 540*20*5mm |
| | | Inner Box | 4000 pieces | 565*158*55mm |
| | | Outer Box | 20000 pieces | 590*310*180mm |
| Reel | TO-252-2L | Reel | 3000 pieces | 330*15mm |
| | | Inner Box | 3000 pieces | 345*345*25mm |
| | | Outer Box | 30000 pieces | 355*290*375mm |