

SCHOTTKY BARRIER DIODE

●Applications

Low current rectification and high speed switching

●Features

Extremely small surface mounting type. (SC-79/SOD523)

Extremely Fast Switching Speed

Extremely Low Forward Voltage 0.5 V (max) @ $I_F = 200$ mA

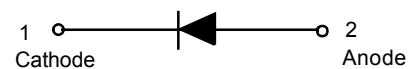
Low Reverse Current

●Construction

Silicon epitaxial planar

- We declare that the material of product compliance with RoHS requirements.

LRB521S-30T1G



DEVICE MARKING AND ORDERING INFORMATION

| Device | Marking | Shipping |
|---------------|---------|-----------------|
| LRB521S-30T1G | 5M | 3000/Tape&Reel |
| LRB521S-30T3G | 5M | 10000/Tape&Reel |

MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$)

| Parameter | Symbol | Limits | Unit |
|-----------------------------|-----------|----------|------------------|
| DC reverse voltage | V_R | 30 | V |
| Mean rectifying current | I_o | 200 | mA |
| Peak forward surge current* | I_{FSM} | 1 | A |
| Junction temperature | T_j | 125 | $^\circ\text{C}$ |
| Storage temperature | T_{sg} | -40~+125 | $^\circ\text{C}$ |

*60Hz for 1cycle.

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$)

| Parameter | Symbol | Min. | Typ | Max. | Unit | Conditions |
|-----------------|--------|------|-----|------|---------------|----------------------|
| Forward voltage | V_F | - | - | 0.50 | V | $I_F = 200\text{mA}$ |
| Reverse current | I_R | - | - | 30 | μA | $V_R = 10\text{V}$ |

LRB521S-30T1G

Electrical characteristic curves(Ta=25°C)

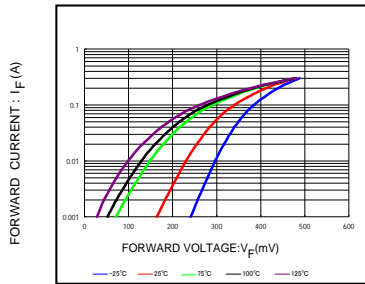


Fig. 1 Forward characteristics

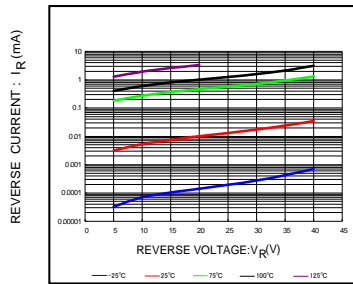


Fig. 2 Reverse characteristics

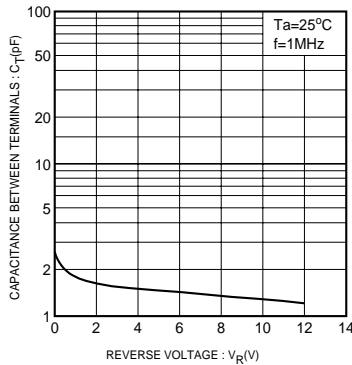
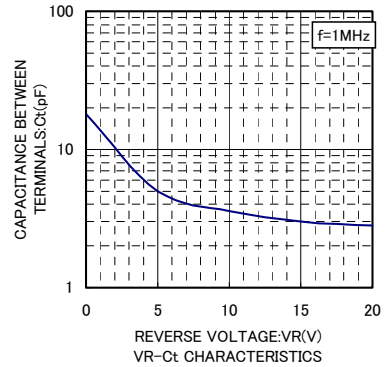


Fig. 3 Capacitance between terminals characteristics

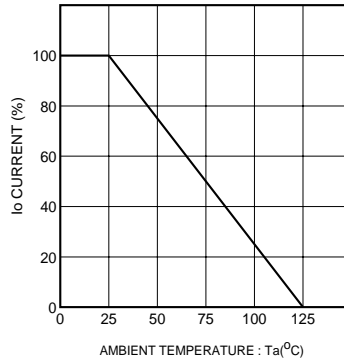
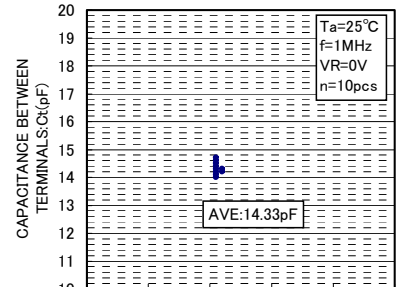
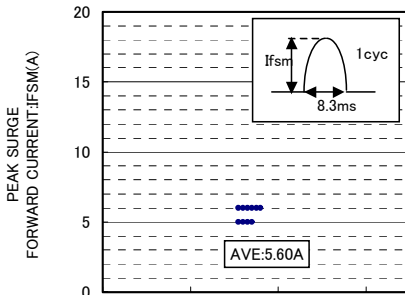


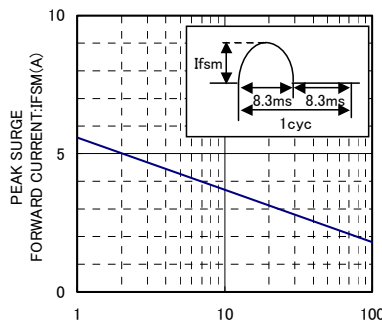
Fig. 4 Derating curve (mounting on glass epoxy PCBs)



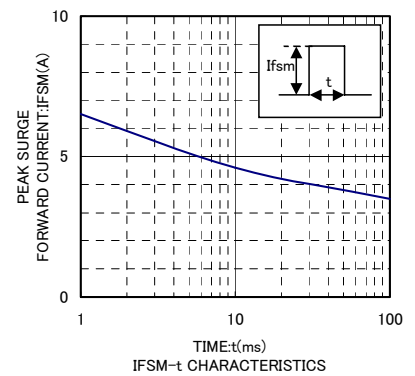
Ct DISPERSION MAP



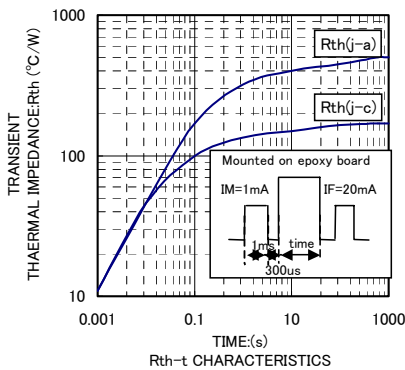
IFSM DISPERSION MAP



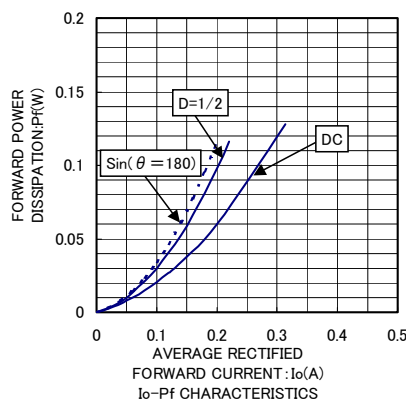
IFSM-CYCLE CHARACTERISTICS



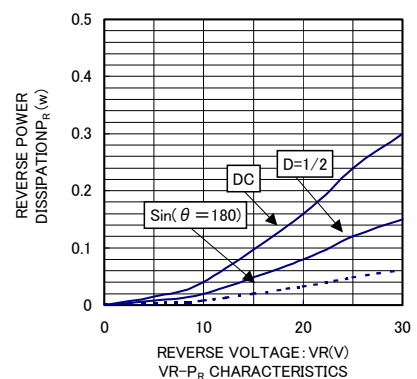
IFSM-t CHARACTERISTICS



Rth-t CHARACTERISTICS



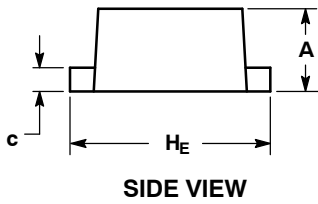
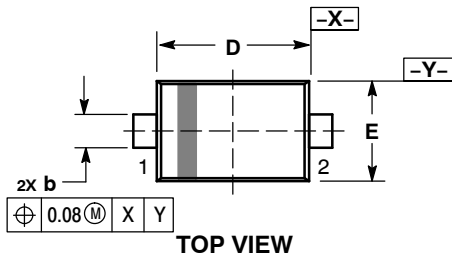
Io-Pf CHARACTERISTICS



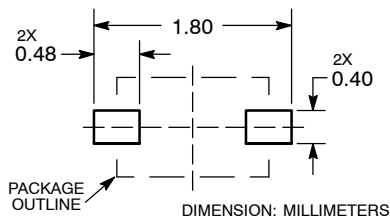
VR-PR CHARACTERISTICS

LRB521S-30T1G

SC-79/SOD-523



**RECOMMENDED
SOLDERING FOOTPRINT***



NOTES:

2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH.

BASE MATERIAL.

4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS, OR GATE BURRS.

| DIM | MILLIMETERS | | |
|----------------|-------------|------|------|
| | MIN | NOM | MAX |
| A | 0.50 | 0.60 | 0.70 |
| b | 0.25 | 0.30 | 0.35 |
| c | 0.07 | 0.14 | 0.20 |
| D | 1.10 | 1.20 | 1.30 |
| E | 0.70 | 0.80 | 0.90 |
| H _E | 1.50 | 1.60 | 1.70 |
| L | 0.30 REF | | |
| L2 | 0.15 | 0.20 | 0.25 |