

# RB751S-40

## SILICON EPITAXIAL PLANAR SCHOTTKY BARRIER DIODE

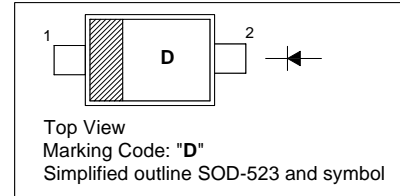
for high speed switching and detection applications

### Features

- Small surface mounting type
- Low reverse current and low forward voltage
- High reliability

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



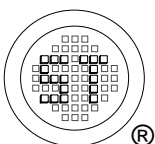
### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	$V_{RM}$	40	V
Reverse Voltage	$V_R$	30	V
Mean Rectifying Current	$I_O$	30	mA
Peak Forward Surge Current (60 Hz, 1 Cycle)	$I_{FSM}$	200	mA
Junction Temperature	$T_j$	125	$^\circ\text{C}$
Storage Temperature Range	$T_s$	- 40 to + 125	$^\circ\text{C}$

### Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Typ.	Max.	Unit
Forward Voltage at $I_F = 1\text{ mA}$	$V_F$	-	0.37	V
Reverse Current at $V_R = 30\text{ V}$	$I_R$	-	0.5	$\mu\text{A}$
Capacitance Between Terminals at $V_R = 1\text{ V}$ , $f = 1\text{ MHz}$	$C_T$	2	-	pF

Note: ESD sensitive product handling required.



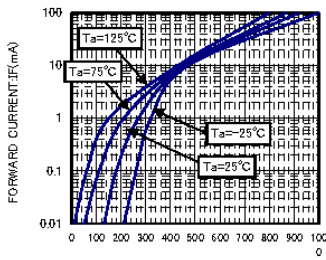
**SEMTECH ELECTRONICS LTD.**

(Subsidiary of Sino-Tech International Holdings Limited, a company  
listed on the Hong Kong Stock Exchange, Stock Code: 724)

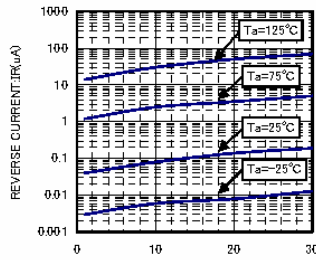


Dated : 23/11/2006

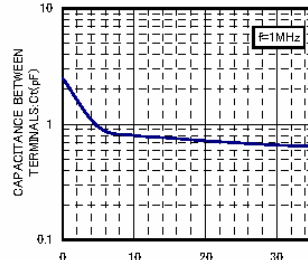
# RB751S-40



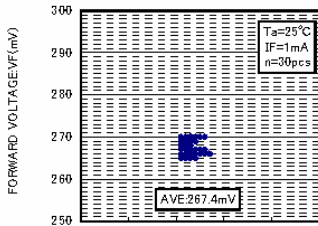
FORWARD VOLTAGE: VF(mV)  
VF-IF CHARACTERISTICS  
VF分布



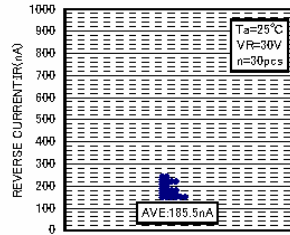
REVERSE VOLTAGE: VR(V)  
VR-IR CHARACTERISTICS



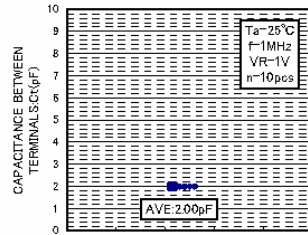
REVERSE VOLTAGE: VR(V)  
VR-Ct CHARACTERISTICS



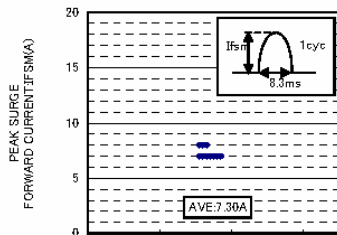
VF DISPERSION MAP



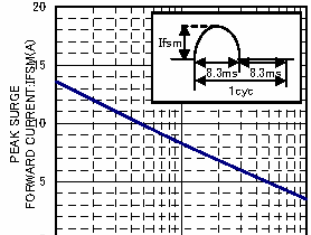
IR DISPERSION MAP



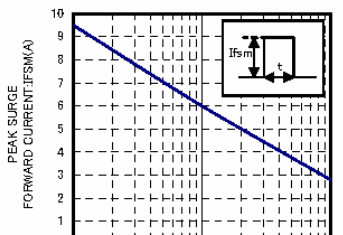
Ct DISPERSION MAP



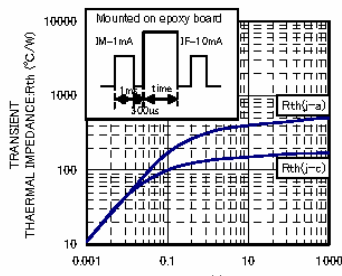
IFSM DISPERSION MAP



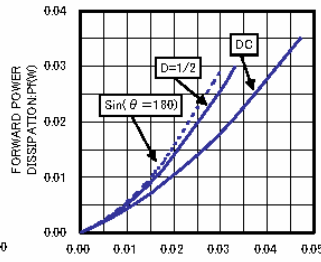
IFSM-CYCLE CHARACTERISTICS



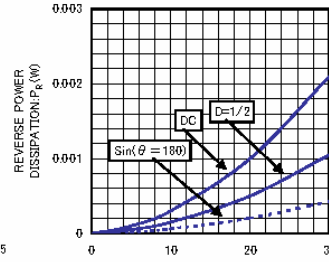
IFSM-t CHARACTERISTICS



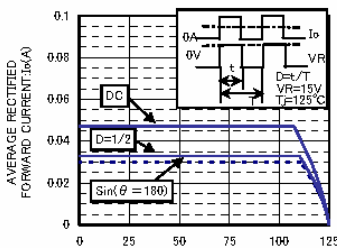
Rth-t CHARACTERISTICS



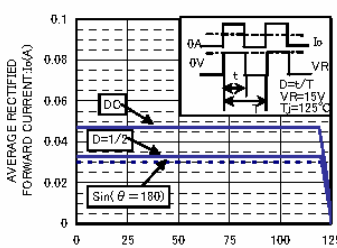
AVERAGE RECTIFIED FORWARD CURRENT Io(A)  
Io-Pf CHARACTERISTICS



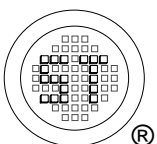
REVERSE VOLTAGE: VR(V)  
VR-Pk CHARACTERISTICS



AMBIENT TEMPERATURE: Ta(°C)  
Derating Curve (Io-Ta)



CASE TEMPERATURE: Tc(°C)  
Derating Curve (Io-Tc)



## SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949:2002 Certificate No. 05103

ISO 14001:2004 Certificate No. 7116

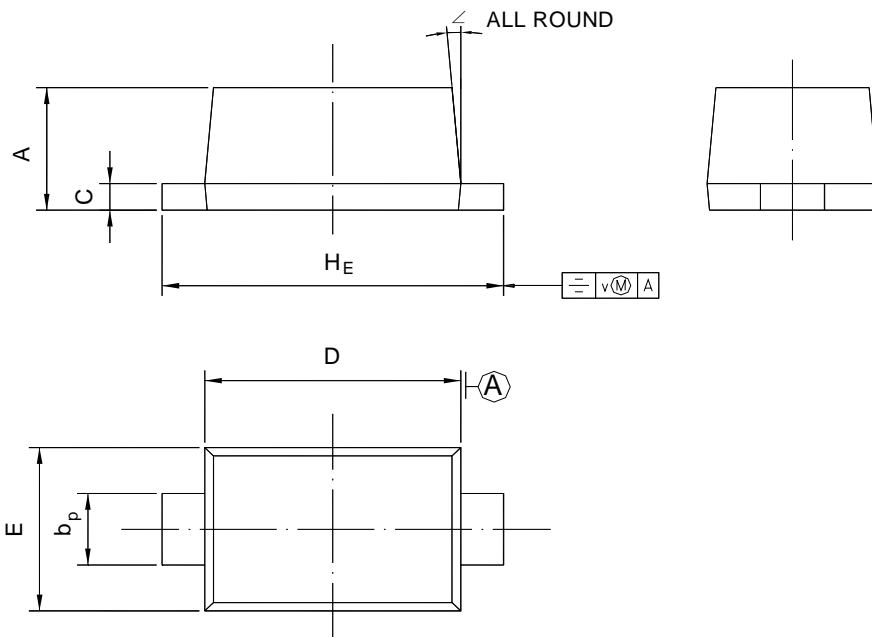
ISO 9001:2000 Certificate No. 0506098

# RB751S-40

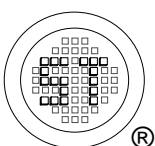
## PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-523



UNIT	A	b <sub>p</sub>	C	D	E	H <sub>E</sub>	V	∠
mm	0.70 0.60	0.4 0.3	0.135 0.127	1.25 1.15	0.85 0.75	1.7 1.5	0.1	5°



**SEMTECH ELECTRONICS LTD.**  
 (Subsidiary of Sino-Tech International Holdings Limited, a company  
 listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002 Certificate No. 05103  
 ISO 14001:2004 Certificate No. 7116  
 ISO 9001:2000 Certificate No. 0506098

Dated : 23/11/2006