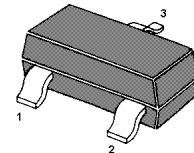
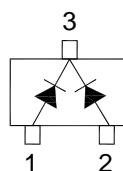


# SB705D

## SILICON EPITAXIAL PLANAR SCHOTTKY BARRIER DIODE

for general purpose detection and high speed switching applications



Marking Code: **RB**  
TO-236 Plastic Package

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

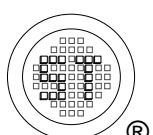
Parameter	Symbol	Value	Unit
Peak Reverse Voltage	$V_{RM}$	40	V
Reverse Voltage	$V_R$	40	V
Mean Rectifying Current	$I_O$	30	mA
Peak Forward Surge Current <sup>1)</sup>	$I_{FSM}$	200	mA
Junction Temperature	$T_j$	125	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 40 to + 125	$^\circ\text{C}$

<sup>1)</sup> 60 Hz for 1

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

Parameter	Symbol	Typ.	Max.	Unit
Forward Voltage at $I_F = 1 \text{ mA}$	$V_F$	-	0.37	V
Reverse Current at $V_R = 10 \text{ V}$	$I_R$	-	1	$\mu\text{A}$
Capacitance between Terminals at $V_R = 1 \text{ V}, f = 1 \text{ MHz}$	$C_T$	2	-	pF

Note: ESD sensitive product handling required.



# SB705D

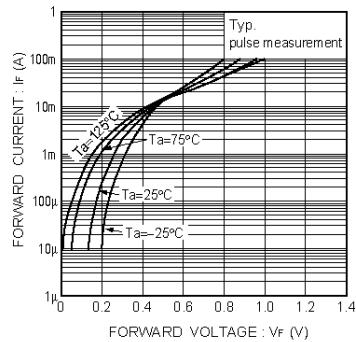


Fig. 1 Forward characteristics

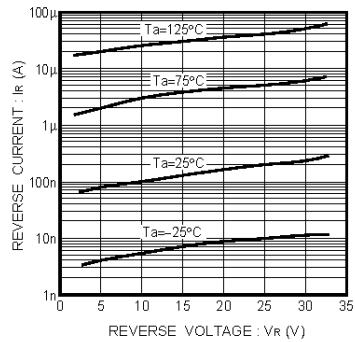


Fig. 2 Reverse characteristics

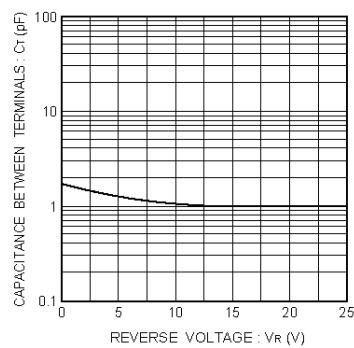


Fig. 3 Capacitance between terminals characteristics

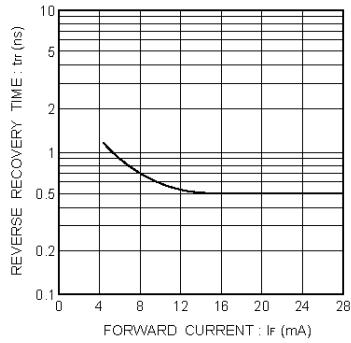


Fig. 4 Reverse recovery time characteristics

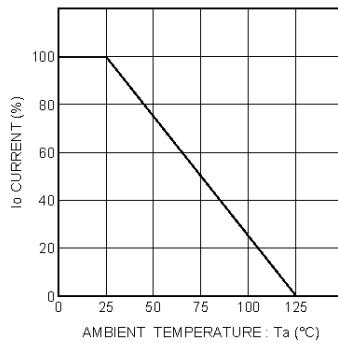
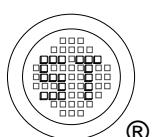


Fig. 5 Derating curve  
(mounting on glass epoxy PCBs)



Dated : 09/08/2006