

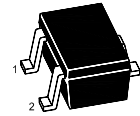
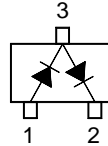
# RB706F-40

## SILICON EPITAXIAL SCHOTTKY BARRIER DIODE

For low current rectification

### Features

- High reliability
- Low reverse current



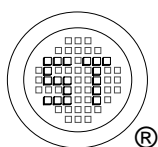
SOT-323 Plastic Package  
Marking Code: ZA

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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	$V_{RM}$	45	V
Reverse Voltage	$V_R$	40	V
Average Rectified Forward Current	$I_O$	30	mA
Peak Forward Surge Current ( $t = 8.3\text{ ms}$ )	$I_{FSM}$	200	mA
Junction Temperature	$T_j$	125	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 125	$^\circ\text{C}$

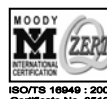
### Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	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	$\mu\text{A}$
Reverse Breakdown Voltage at $I_R = 10\text{ }\mu\text{A}$	$V_{(BR)R}$	45	-	-	V
Capacitance between Terminals at $V_R = 1\text{ V}$ , $f = 1\text{ MHz}$	$C_T$	-	2	-	pF



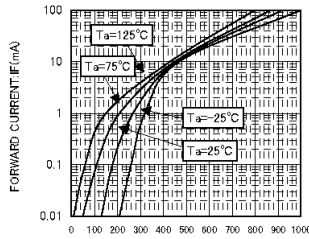
## SEMTECH ELECTRONICS LTD.

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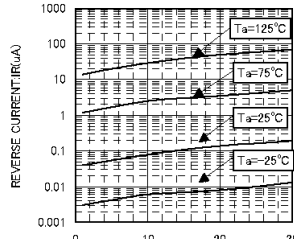


Dated : 12/03/2009

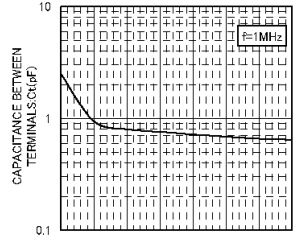
# RB706F-40



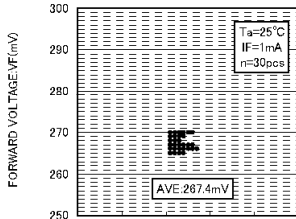
FORWARD VOLTAGE: VF(mV)  
VF-IF CHARACTERISTICS



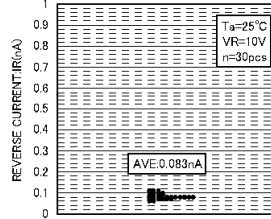
REVERSE VOLTAGE: VR(V)  
VR-IR CHARACTERISTICS



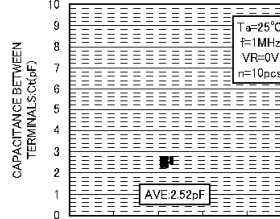
REVERSE VOLTAGE: VR(V)  
VR-Ct CHARACTERISTICS



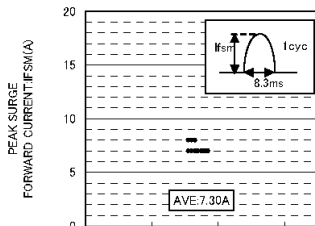
VF DISPERSION MAP



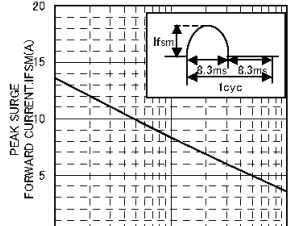
IR DISPERSION MAP



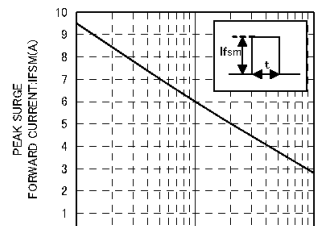
Ct DISPERSION MAP



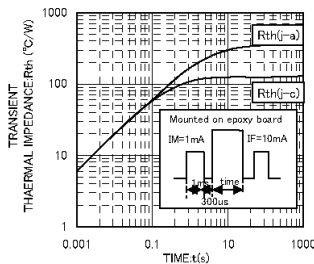
IFSM DISPERSION MAP



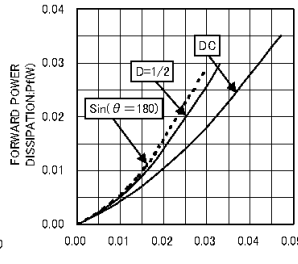
NUMBER OF CYCLES  
IFSM-CYCLE CHARACTERISTICS



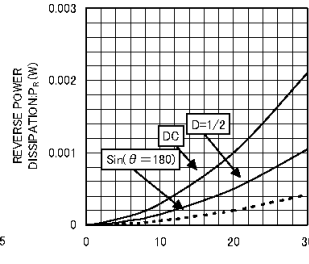
TIME: t(ms)  
IFSM-t CHARACTERISTICS



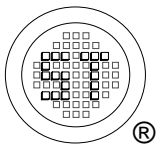
Rth-t CHARACTERISTICS



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



REVERSE VOLTAGE: VR(V)  
VR-Pavg CHARACTERISTICS



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ISO/TS 16949:2002  
Certificate No. 05103



ISO 14001:2004  
Certificate No. 7116



ISO 9001:2000  
Certificate No. 050059



BS-OHSAS 18001:2007  
Certificate No. 7116



IECQ QC 080000  
Certificate No. 050059