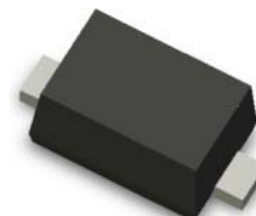
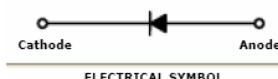


RB751S40

Schottky Barrier Diodes

- Low Forward Voltage Drop
- Flat Lead, Surface Mount Device at 0.60mm Height
- Extremely Small Outline Plastic Package SOD523F
- Moisture Level Sensitivity 1
- Pb-free Version and RoHS Compliant
- Matte Tin (Sn) Lead Finish
- Green Mold Compound



SOD-523F
Band Indicates Cathode*
Marking: 4B

Absolute Maximum Ratings* $T_a=25^{\circ}\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{RRM}	Maximum Repetitive Reverse Voltage	40	V
$I_{F(AV)}$	Average Rectified Forward Current	30	mA
I_{FSM}	Non-Repetitive Peak Forward Current	500	mA
T_J	Operating Junction Temperature Range	-55 to +125	$^{\circ}\text{C}$
T_{STG}	Storage Temperature Range	-55 to +125	$^{\circ}\text{C}$

* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

Thermal Characteristics

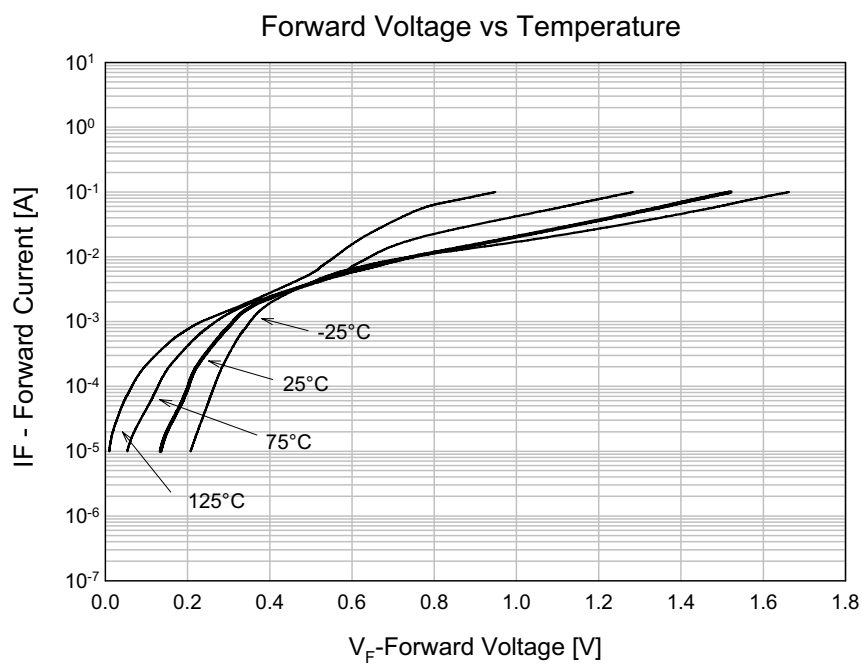
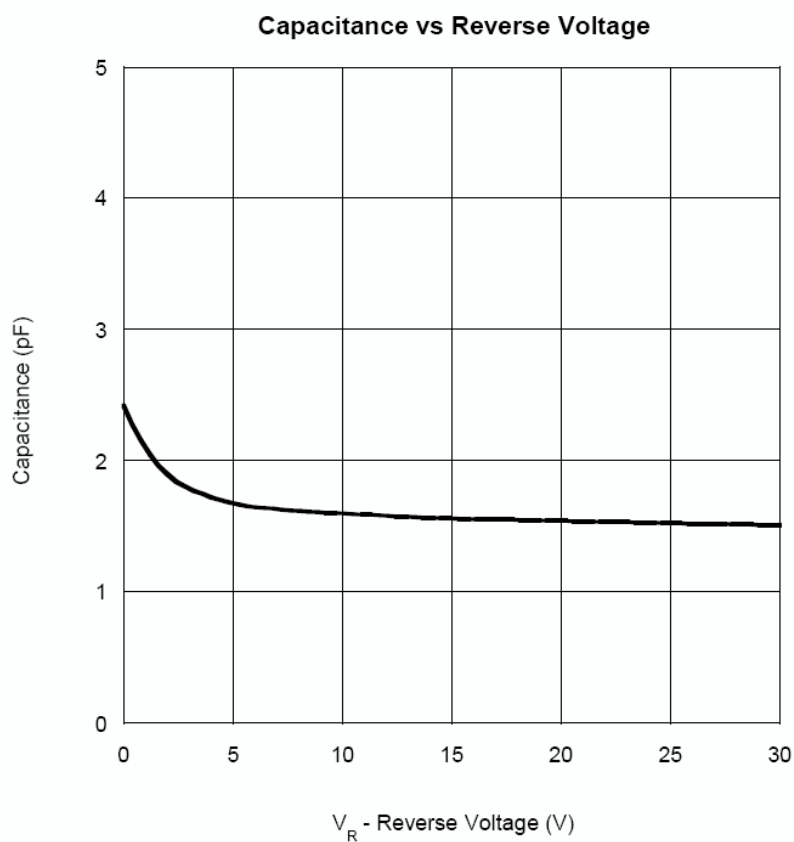
Symbol	Parameter	Value	Unit
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	500	$^{\circ}\text{C/W}$
P_D	Total Device Dissipation($T_C=25^{\circ}\text{C}$)	200	mW

*Device mounted on FR-4 PCB minimum land pad.

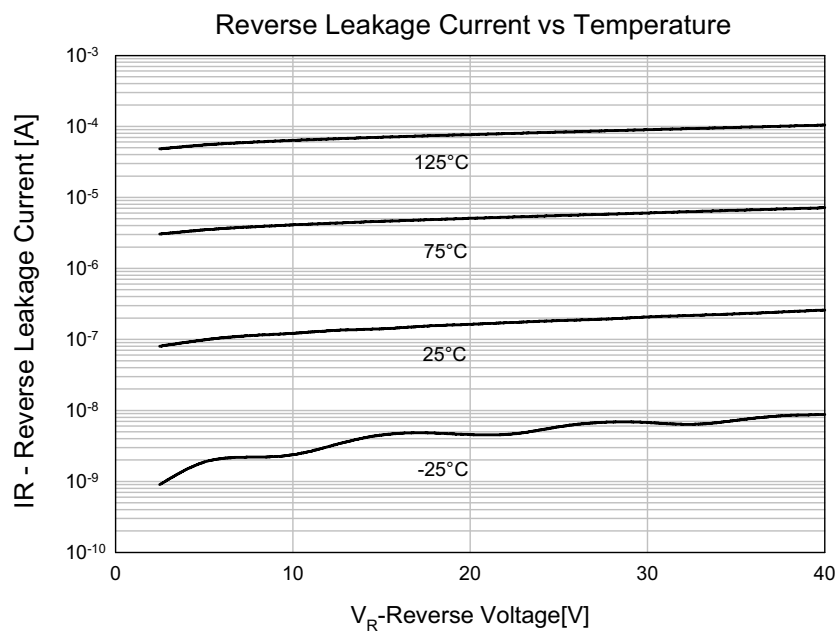
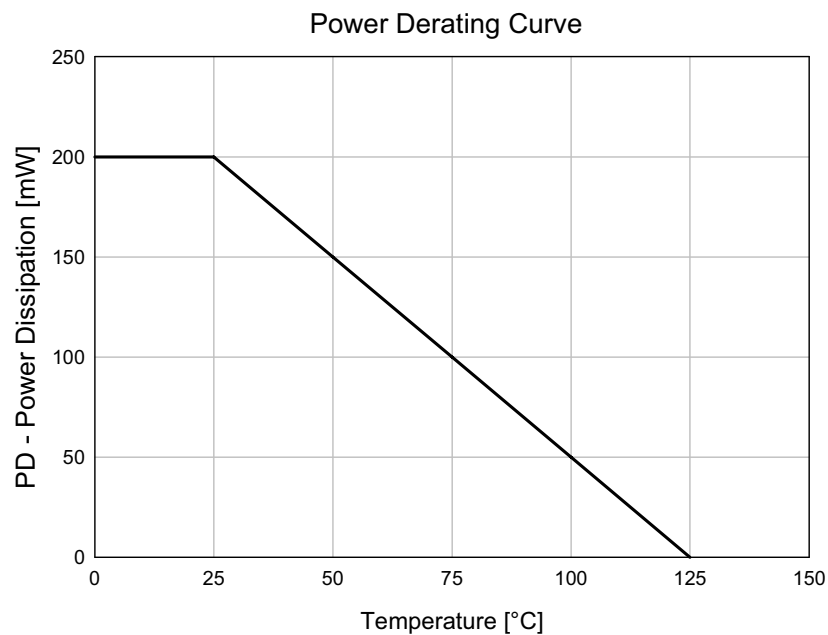
Electrical Characteristics* $T_a=25^{\circ}\text{C}$ unless otherwise noted

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Units
BV_R	Breakdown Voltage	$I_R = 500 \mu\text{A}$	30			V
I_R	Reverse Current	$V_R = 10 \text{ V}$			0.5	μA
V_F	Forward Voltage	$I_F = 1 \text{ mA}$			0.37	V

Typical Performance Characteristics

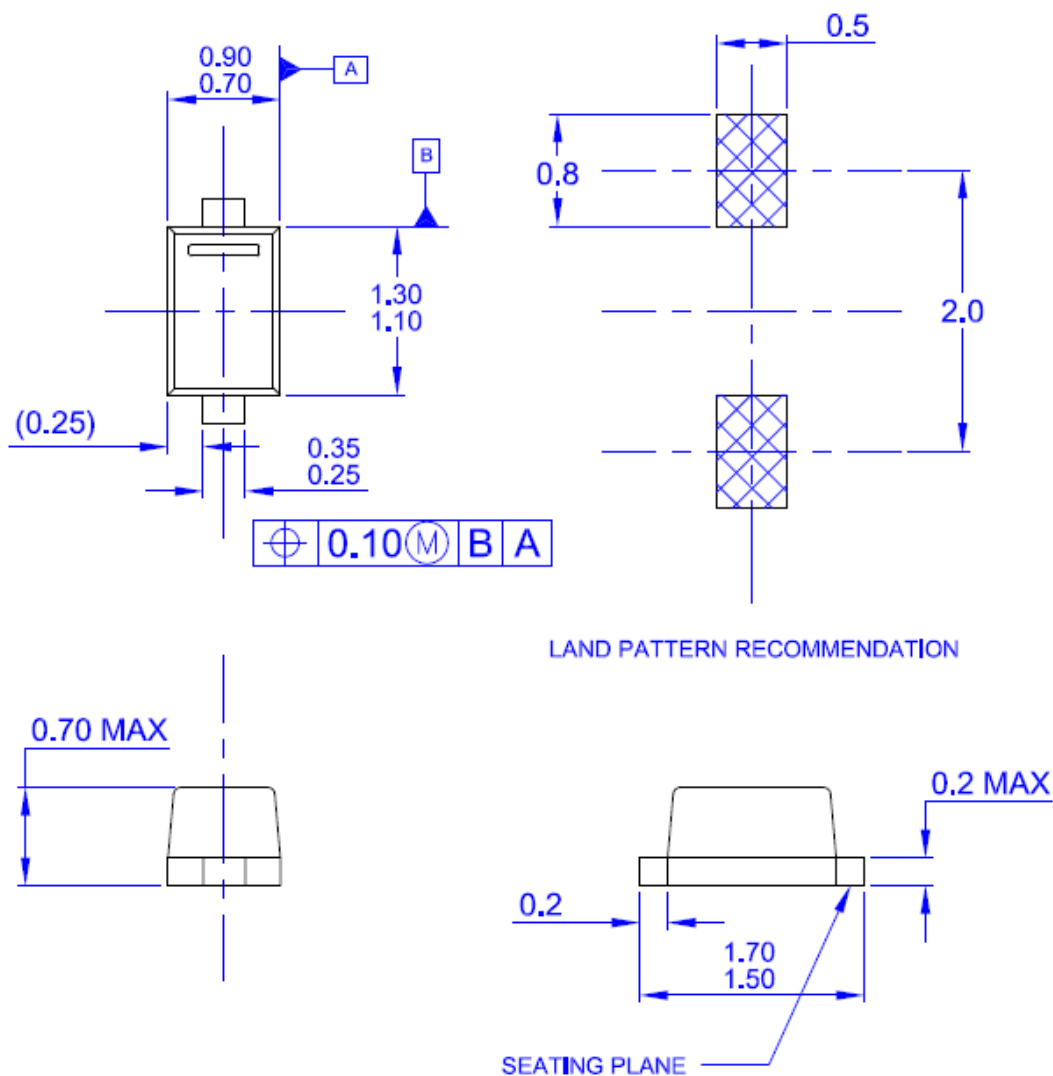


Typical Performance Characteristics



Package Dimension

SOD-523F




NOTES: UNLESS OTHERWISE SPECIFIED

- A) PACKAGE REFERENCE: THIS PACKAGE OUTLINE CONFORMS TO JEITA SC-79.
- B) ALL DIMENSIONS ARE IN MILLIMETERS.
- C) DRAWING CONFORMS TO ASME Y14.5M - 1994
- D) DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH, AND TIE BAR EXTRUSIONS.
- E) LANDPATTERN RECOMMENDATION IS BASED ON IPC7351A STANDARD SOD1609X65M.
- F) DRAWING NUMBER AND REVISION: MKT-SOD523F1rev1



TRADEMARKS

The following are registered and unregistered trademarks and service marks Fairchild Semiconductor owns or is authorized to use and is not intended to be an exhaustive list of all such trademarks.

ACE ^x [®]	Green FPS [™]	Power247 [®]	SuperSOT [™] -8
Build it Now [™]	Green FPS [™] e-Series [™]	POWEREDGE [®]	SyncFET [™]
CorePLUS [™]	GTO [™]	Power-SPM [™]	The Power Franchise [®]
CROSSVOLT [™]	i-Lo [™]	PowerTrench [®]	the power franchise
CTL [™]	IntelliMAX [™]	Programmable Active Droop [™]	TinyBoost [™]
Current Transfer Logic [™]	ISOPLANAR [™]	QFET [®]	TinyBuck [™]
EcoSPARK [®]	MegaBuck [™]	QS [™]	TinyLogic [®]
F [®]	MICROCOUPLER [™]	QT Optoelectronics [™]	TINYOPTO [™]
Fairchild [®]	MicroFET [™]	Quiet Series [™]	TinyPower [™]
Fairchild Semiconductor [®]	MicroPak [™]	RapidConfigure [™]	TinyPWM [™]
FACT Quiet Series [™]	Motion-SPM [™]	SMART START [™]	TinyWire [™]
FACT [®]	OPTOLOGIC [®]	SPM [®]	μSerDes [™]
FAST [®]	OPTOPLANAR [®]	STEALTH [™]	UHC [®]
FastvCore [™]	 [®]	SuperFET [™]	UniFET [™]
FPS [™]	PDP-SPM [™]	SuperSOT [™] -3	VCX [™]
FRFET [®]	Power220 [®]	SuperSOT [™] -6	
Global Power Resource SM			

DISCLAIMER

FAIRCHILD SEMICONDUCTOR RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE TO ANY PRODUCTS HEREIN TO IMPROVE RELIABILITY, FUNCTION, OR DESIGN. FAIRCHILD DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE APPLICATION OR USE OF ANY PRODUCT OR CIRCUIT DESCRIBED HEREIN; NEITHER DOES IT CONVEY ANY LICENSE UNDER ITS PATENT RIGHTS, NOR THE RIGHTS OF OTHERS. THESE SPECIFICATIONS DO NOT EXPAND THE TERMS OF FAIRCHILD'S WORLDWIDE TERMS AND CONDITIONS, SPECIFICALLY THE WARRANTY THEREIN, WHICH COVERS THESE PRODUCTS.

LIFE SUPPORT POLICY

FAIRCHILD'S PRODUCTS ARE NOT AUTHORIZED FOR USE AS CRITICAL COMPONENTS IN LIFE SUPPORT DEVICES OR SYSTEMS WITHOUT THE EXPRESS WRITTEN APPROVAL OF FAIRCHILD SEMICONDUCTOR CORPORATION.

As used herein:

1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, and (c) whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in significant injury to the user.
2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

PRODUCT STATUS DEFINITIONS

Definition of Terms

Datasheet Identification	Product Status	Definition
Advance Information	Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
Preliminary	First Production	This datasheet contains preliminary data; supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve design.
No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve design.
Obsolete	Not In Production	This datasheet contains specifications on a product that has been discontinued by Fairchild semiconductor. The datasheet is printed for reference information only.

Rev. I30