



SURFACE MOUNT TRIPLE SCHOTTKY DIODES

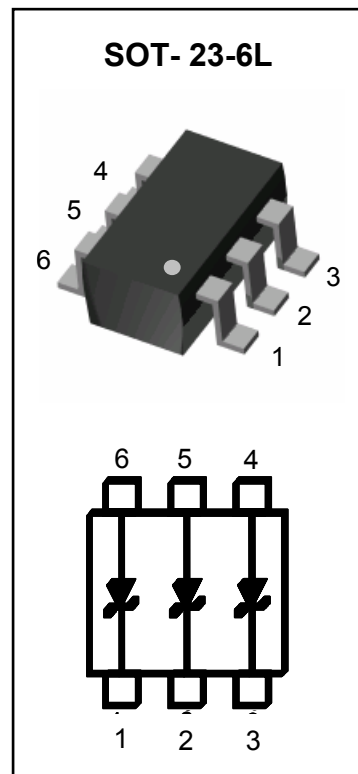
This device features three electrically-isolated Schottky diodes housed in a very small SOT-23-6L package. It is ideal for applications where board space is at a premium.

FEATURES

- Low reverse leakage current (guaranteed $<0.98\mu\text{A}$ @ 25V)
- Reverse voltage rating of 40V
- Lead-free plating (100% matte tin finish)

APPLICATIONS

- Mobile phones and accessories
- Video game consoles connector ports
- PDA's



Device Marking: 731

MAXIMUM RATINGS (Per Diode) $T_J = 25^\circ\text{C}$ Unless otherwise noted

Rating	Symbol	Value	Units
Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Continuous Reverse Voltage	V_R	40	V
Average Rectified Forward Current	I_O	30	mA
Non-repetitive Peak Forward Current (60Hz, 1 cycle)	I_{FSM}	200	mA
Total Power Dissipation (Note 1)	P_{tot}	225	mW
Operating Junction Temperature Range	T_J	-55 to 125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-65 to 150	$^\circ\text{C}$

Note 1. FR-4 Board 70 x 60 x 1mm.

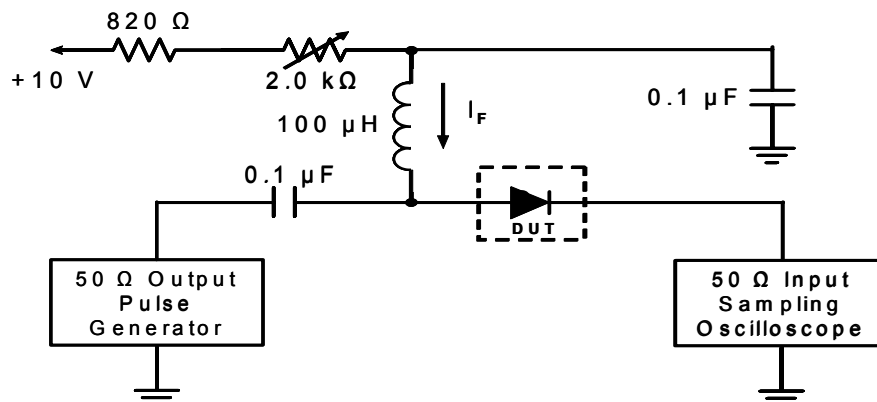
THERMAL CHARACTERISTICS

Characteristic	Symbol	Value	Units
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	556	$^\circ\text{C/W}$

ELECTRICAL CHARACTERISTICS (Per Diode) $T_j = 25^\circ\text{C}$ Unless otherwise noted

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Breakdown Voltage (Note 1)	V_{BR}	$I_{BR} = 10\mu\text{A}$	40	-	-	V
Forward Voltage (Note 1)	V_F	$I_F = 1\text{mA}$	-	-	370	mV
Reverse Leakage Current (Note 1)	I_R	$V_R = 25\text{V}$	-	-	0.98	μA
Total Capacitance	C_T	1Vdc Bias, $f = 1\text{MHz}$	-	2.0	5.0	pF
Reverse Recovery Time (See Figure 1)	t_{rr}	$I_F = 10\text{mA}$, $I_R = 10\text{mA}$ $R_L = 100\text{ Ohms}$; measured at $I_{R\text{rec}} = 1\text{mA}$	-	-	5.0	ns

Note 1. Short duration pulse to minimize self-heating effect



- Notes: 1. A 2.0k Ω variable resistor adjusted for a forward current (I_F) to 10mA
 2. Input pulse is adjusted to $I_{R(\text{peak})}$ is equal to 10mA

Figure 1. REVERSE RECOVERY TIME EQUIVALENT TEST CIRCUIT

TYPICAL CHARACTERISTIC CURVES (Per Diode)

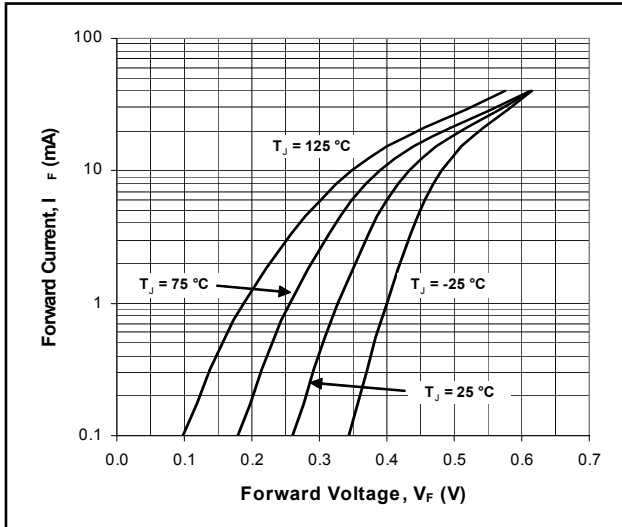


Fig. 2. Typical Forward Characteristics

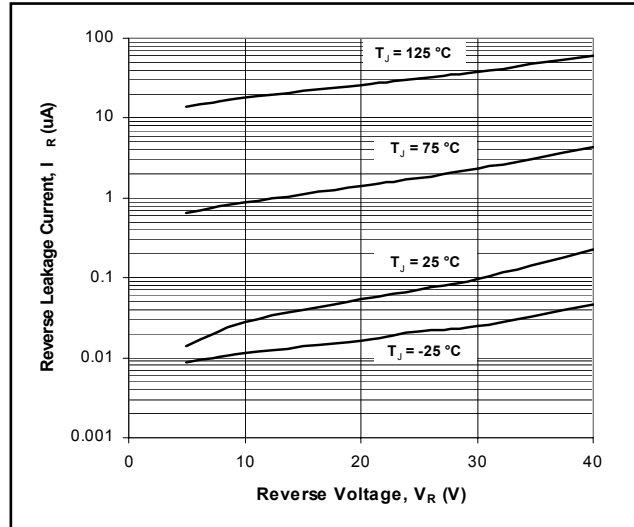


Fig. 3. Typical Reverse Characteristics

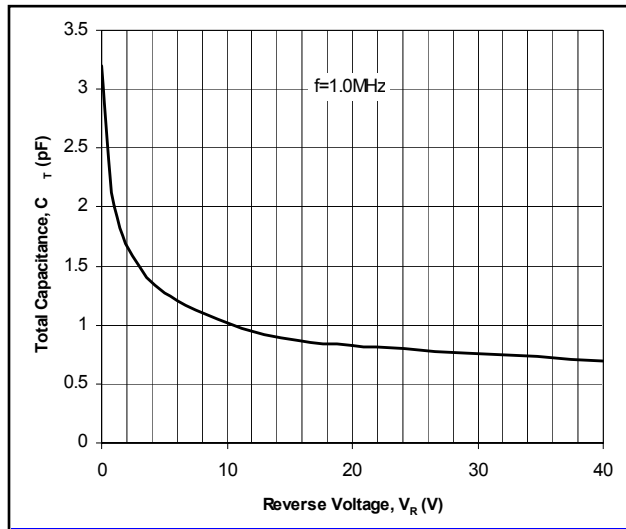
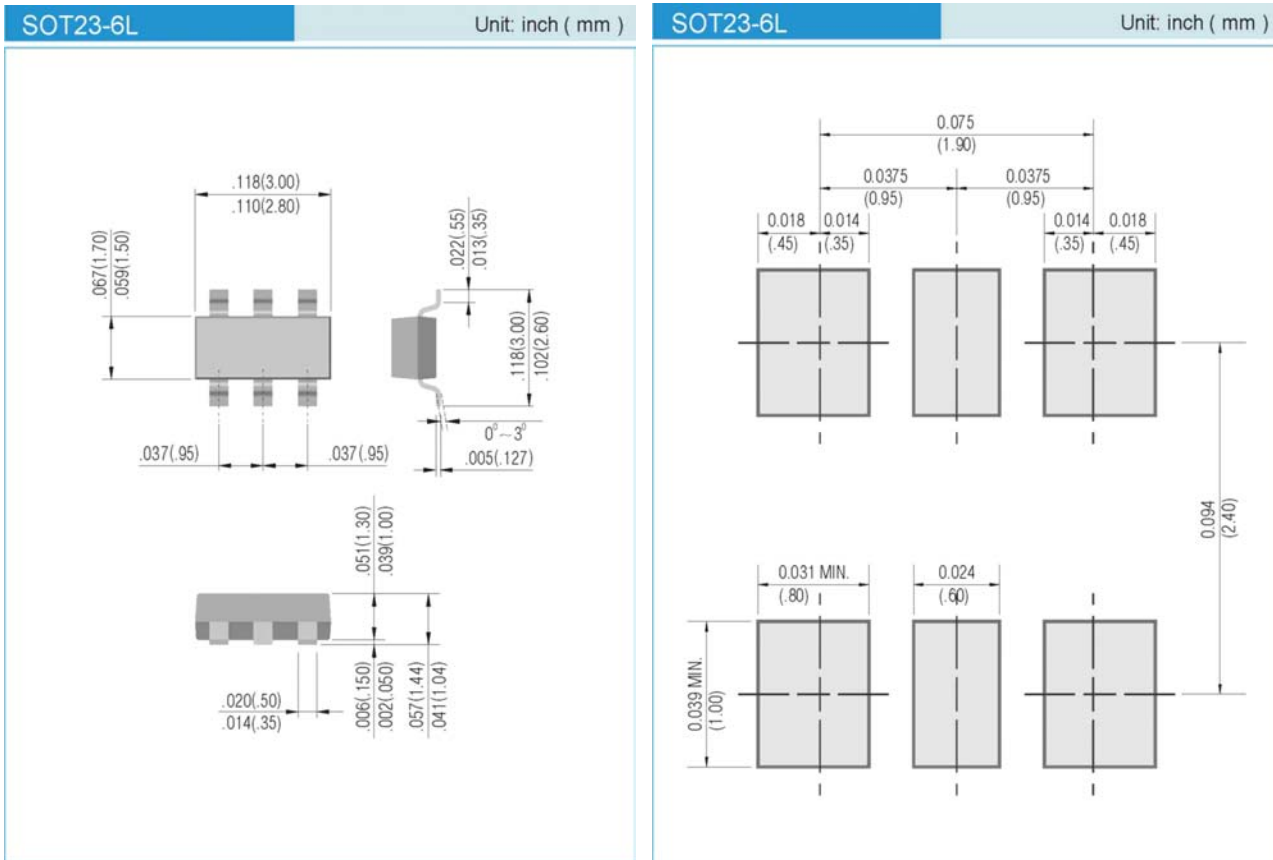


Fig. 4. Typical Capacitance

PACKAGE LAYOUT AND SUGGESTED PAD DIMENSIONS

ORDERING INFORMATION

RB731U T/R7 - 7" reel, 3K units per reel

RB731U T/R13 - 13" reel, 10K units per reel

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