



BAV756S

DIODE

HIGH-SPEED SWITCHING DIODE

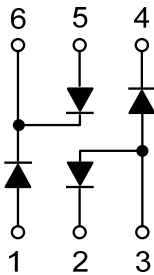
DESCRIPTION

The UTC **BAV756S** is a High-speed switching diode, encapsulated in a very small SOT363 Surface-Mounted Device (SMD) plastic package.

FEATURES

- * High switching speed: $t_r \leq 6\text{ns}$
- * Low capacitance: $C_d \leq 3\text{pF}$
- * Low leakage current
- * Reverse voltage: $V_R \leq 90\text{V}$

SYMBOL



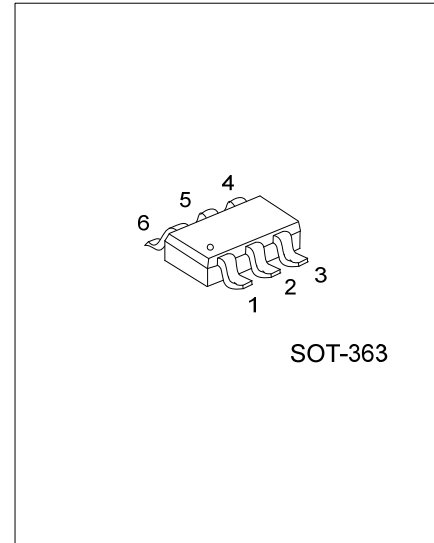
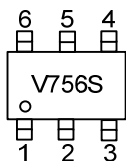
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment						Packing
Lead Free	Halogen Free		1	2	3	4	5	6	
BAV756SL-AL6-R	BAV756SG-AL6-R	SOT-363	A1	K2	A2, A3	K3	A4	K1, K4	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

<p>BAV756SG-AL6-R</p> <p>(1) Packing Type</p> <p>(2) Package Type</p> <p>(3) Green Package</p>		<p>(1) R: Tape Reel</p> <p>(2) AL6: SOT-363</p> <p>(3) G: Halogen Free and Lead Free, L: Lead Free</p>
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MARKING



SOT-363

■ ABSOLUTE MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$, unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT
PER DIODE				
Repetitive Peak Reverse Voltage		V _{RRM}	90	V
Working Peak Reverse Voltage		V _{RWM}	90	V
Reverse Voltage		V _R	90	V
Forward Current (T _S =60°C)		I _F	250	mA
Repetitive Peak Forward Current		I _{FRM}	500	mA
Non-Repetitive Peak Forward Surge Current	t = 1.0μs	I _{FSM}	4	A
	t = 1.0ms		1	A
	t = 1.0s		0.5	A
Power Dissipation (Note 2)		P _D	350	mW
PER DEVICE				
Forward Current (T _S =60°C)		I _F	100	mA
Junction Temperature		T _J	+150	°C
Storage Temperature		T _{STG}	-65 ~ +150	°C

Notes: 1. Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

2. Device mounted on an FR4 Printed-Circuit Board (PCB), single-sided copper, tin-plated and standard footprint.

■ THERMAL DATA

PARAMETER	SYMBOL	RATINGS	UNIT
Thermal Resistance From Junction to Solder Point	θ_{J-SP}	255	K/W

Note: Device mounted on an FR4 Printed-Circuit Board (PCB), single-sided copper.

■ ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$, unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
PER DIODE						
Forward Voltage	V_F	$I_F=1\text{mA}$	$t_P \leq 300\mu\text{s}, \delta \leq 0.02,$ Pulsed		715	mV
		$I_F=10\text{mA}$			855	mV
		$I_F=50\text{mA}$			1	V
		$I_F=150\text{mA}$			1.25	V
Leakage Current	I_R	$V_R=25\text{V}, T_A=25^{\circ}\text{C}$			30	nA
		$V_R=80\text{V}, T_A=25^{\circ}\text{C}$			0.5	μA
		$V_R=25\text{V}, T_J=150^{\circ}\text{C}$			30	μA
		$V_R=80\text{V}, T_J=150^{\circ}\text{C}$			150	μA
Diode Capacitance	C_d	$V_R=0, f=1.0\text{MHz}$			3	pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=10\text{mA}, I_{rr}=1\text{mA}, R_L=100\Omega$			6	ns

Note: Short duration test pulse to minimize self-heating effect.

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