



USB06U45D

Preliminary

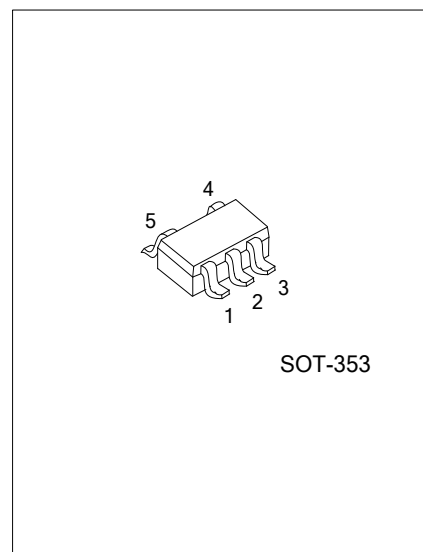
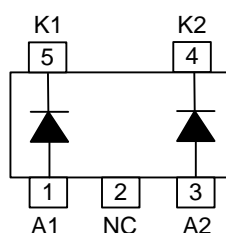
DIODE

SCHOTTKY BARRIER DIODE SILICON EPITAXIAL

FEATURES

- * Low forward voltage: $V_F=0.47V$ (Typ.)
- * High-Speed switching

PIN CONFIGURATION



SOT-353

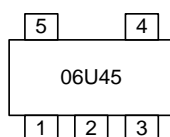
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment					Packing
Lead Free	Halogen Free		1	2	3	4	5	
USB06U45DL-AL5-R	USB06U45DG-AL5-R	SOT-353	A1	NC	A2	K2	K1	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode NC: No Connection

USB06U45DG-AL5-R	(1) Packing Type	(1) R: Tape Reel
	(2) Package Type	(2) AL5: SOT-353
	(3) Green Package	(3) G: Halogen Free and Lead Free, L: Lead Free

MARKING



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

PARAMETER	SYMBOL	RATINGS	UNIT
DC Blocking Voltage	V_{RM}	32	V
Maximum DC Blocking Voltage	V_R	30	V
Average Rectified Forward Current (Note 2)	I_O	1	A
Peak Forward Surge Current (Note 3)	I_{FSM}	5	A
Operating Junction Temperature	T_J	+125	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55 ~ +150	$^{\circ}\text{C}$

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. Repetitive Rating: Pulse width limited by maximum junction temperature.

3. Mounted on a Ceramics circuit board of 25 mm × 25 mm, Pad dimension of 2 mm × 2 mm.

This is absolute maximum rating of single diode.

In the case of using 2 diodes, the absolute maximum ratings per diodes is 75 % of the single diode one.

4. Measured with a 10 ms pulse. This is absolute maximum rating of single diode.

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Forward Voltage Drop	V_{F1}	$I_F=10\text{mA}$		0.23		V
	V_{F2}	$I_F=100\text{mA}$		0.31		V
	V_{F3}	$I_F=1\text{A}$		0.51		V
Reverse current	I_R	$V_R=30\text{V}$			50	μA
Total Capacitance	C_T	$V_R=0\text{V}$, $f=1\text{MHz}$		150		pF

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