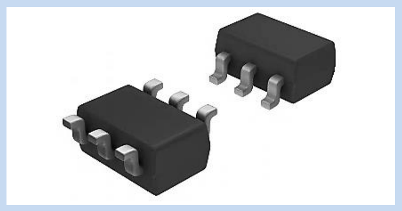
Schottky Barrier Diode Array
200mW SOT-23-6

SBT430A2S236

MERITEK

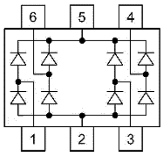
FEATURES

- Low Forward Voltage Drop for Improved Voltage Protection
- Fast Switching
- Low Reverse Capacitance
- Schottky Diode Array for Four Data Lines



MECHANICAL DATA

- Case: SOT-23-6, Molded Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026



RoHS

MAXIMUM RATINGS AND THERMAL CHARACTERISTICS

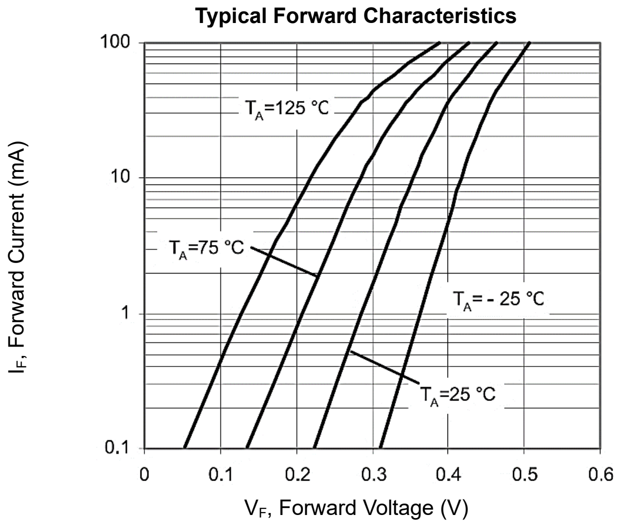
Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RRM}	30	V
Average Forward Rectified Current	$I_{F(AV)}$	200	mA
Non-Repetitive Surge Current, t=1s	I_{FSM}	600	mA
Power Dissipation	P_D	200	mW
Typical Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	625	°C/W
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +125	°C

ELECTRICAL CHARACTERISTICS

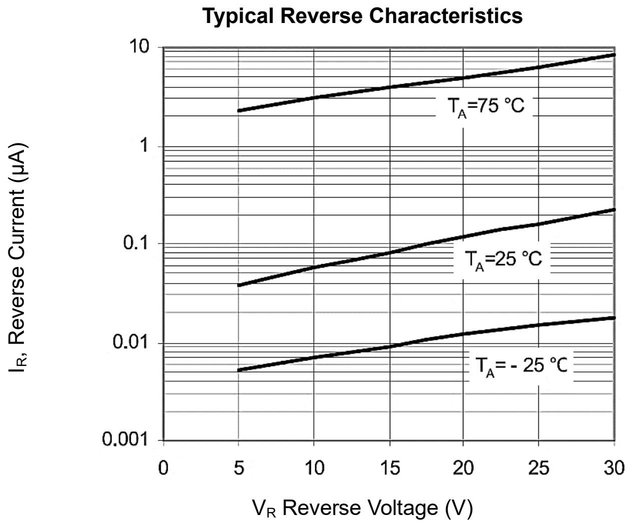
Parameter		Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	I_R=100μA	V_{BR}	30	--	--	V
Maximum Forward Voltage	I_F=0.1mA	V_F	--	0.225	0.280	V
	I_F=1.0mA		--	0.280	0.350	
	I_F=10mA		--	0.350	0.450	
	I_F=30mA		--	0.390	0.550	
	I_F=100mA		--	0.460	1.0	
Maximum Reverse Current	V_R=25V	I_R	--	--	2.0	μA
Total Capacitance, Data Line to Ground	V_R=0V, F=1MHz	C_T	--	19	--	pF
Total Capacitance, Between Data Lines	V_R=0V, F=1MHz		--	12	--	
Reverse Recovery Time	I_F= I_R=10mA, I_{RR}=1mA, R_L=100Ω	T_{RR}	--	--	5.0	ns

Note:
1. Ratings at 25°C ambient temperature unless otherwise specified.
2. Device mounted on a FR4 board,1.0x0.85x0.062 inch^3, with minimum pad layout.

CHARACTERISTIC CURVES



Typical Forward Characteristics



Typical Reverse Characteristics

DIMENSIONS

SOT-23-6	Min (mm)	Max (mm)
A1	0.00	0.15
A2	0.90	1.30
A3	-	1.45
b	0.30	0.50
C	0.08	0.22
D	2.80	3.00
e	0.95	
e1	1.90	
E	2.60	3.00
E1	1.50	1.70
L	0.30	0.60
X	0.60	
X1	2.50	
Y	0.67	
Y1	3.10	
G	1.76