

Features

- High reliability
- Small surface mounting type

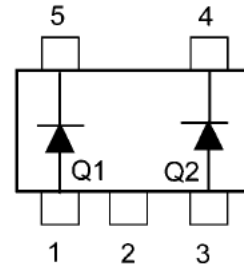
HF

Typical Applications

- High-Speed Switchings

Mechanical Data

- Case: SOT-353
- Molding compound, UL flammability classification rating 94V-0
- Terminals: Tin plated leads, solderable per MIL-STD-202, Method 208



SOT-353

Ordering Information

Part Number	Package	Shipping	Marking Code
MBR130K	SOT-353	3000 pcs / Tape & Reel	SB1

Maximum Ratings (@T_A=25°C unless otherwise specified)

Parameter	Symbol	Value	Units
Peak Repetitive Reverse Voltage	V _{RRM}	32	V
RMS Reverse Voltage	V _{RMS}	30	V
Maximum Average Forward Output Current	I _{F(AV)}	1	A
Peak Forward Surge Current, 8.3ms Single Half-sine-wave	I _{FSM}	5	A

Thermal Characteristics

Parameter	Symbol	Value	Units
Operating Junction Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

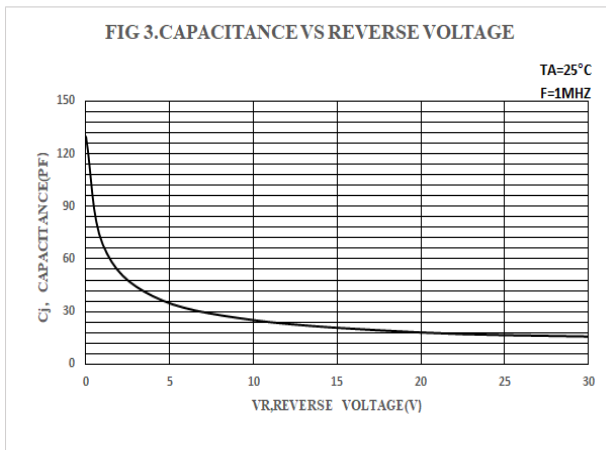
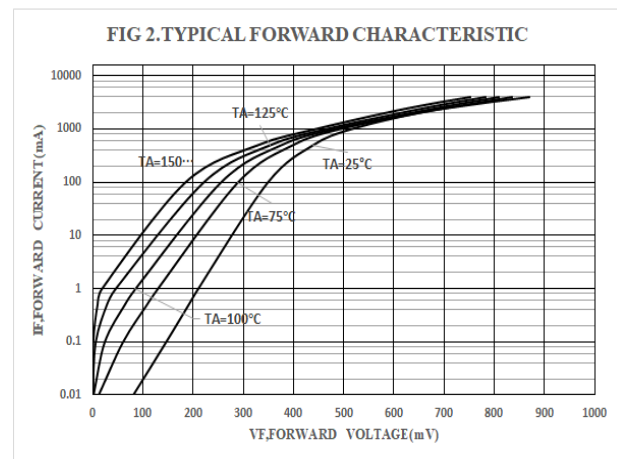
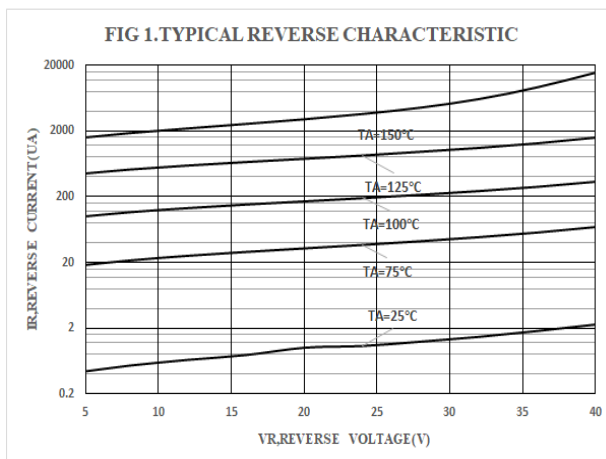
* Part mounted on FR-4 board with recommended pad layout

Electrical Characteristics (@ $T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min.	Typ.	Max.	Units
Forward Voltage	V_F^*	$I_F=10\text{mA}$	-	0.23	-	V
		$I_F=100\text{mA}$	-	0.35	-	
		$I_F=1\text{A}$	-	0.51	0.57	
Maximum Peak Reverse Current	I_R^{**}	$V_R=30\text{V}$	-	-	50	μA
Capacitance Between Terminals	C_T	$V_R=0\text{V}$, $f=1\text{MHz}$	-	129	-	pF

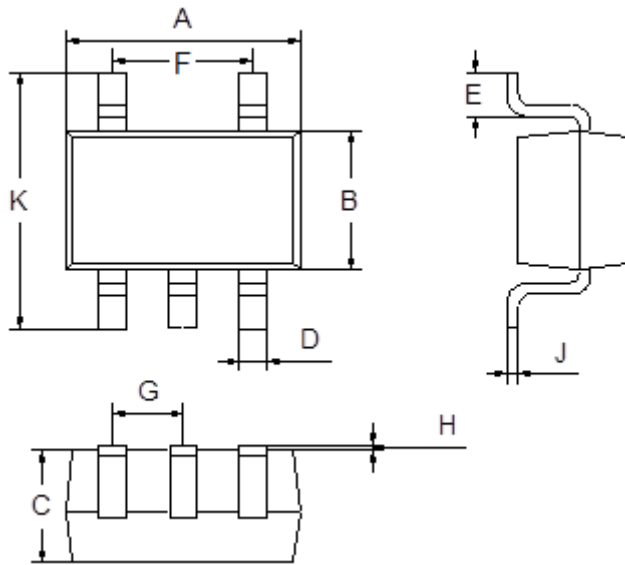
*Pulse width $\leq 380\mu\text{s}$, Duty cycle $< 2\%$
 **pulse test, $t_p \leq 5\text{ms}$

Ratings and Characteristic Curves ($T_A=25^{\circ}\text{C}$ unless otherwise noted)



Package Outline Dimensions(unit:mm)

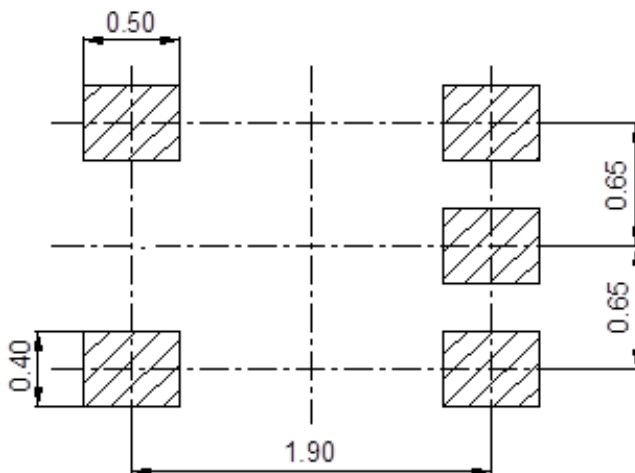
SOT-353



SOT-353		
Dim	Min	Max
A	2.00	2.20
B	1.15	1.35
C	0.85	1.05
D	0.15	0.35
E	0.25	0.40
F	1.20	1.40
G	0.60	0.70
H	0.02	0.10
J	0.05	0.15
K	2.20	2.40

Mounting Pad Layout(unit:mm)

SOT-353



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