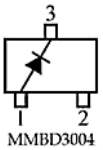
Diodes Array
350mW SOT-23

MMBD3004 Series

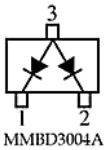
MERITEK

FEATURE

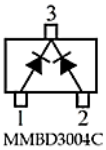
- Power Dissipation: 350mW
- 625mA Average Rectified Current
- High Reverse Breakdown Voltage Rating
- Fast Switching Speed



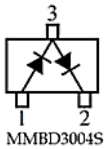
MMBD3004



MMBD3004A



MMBD3004C



MMBD3004S

RoHS

MECHANICAL DATA

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

MAXIMUM RATING

Parameter		Symbol	Value	Units
Peak Repetitive Reverse Voltage		V_{RRM}	350	V
Working Peak Reverse Voltage		V_{RWM}	300	V
DC Reverse Voltage		V_R	300	V
Average Forward Continuous Current		$I_{F(AV)}$	225	mA
Non-Repetitive Peak Forward Surge Current	at t=1s	I_{FSM}	1	A
	at t=1μs		4	
Repetitive Peak Forward Surge Current		I_{FRM}	625	mA
Power Dissipation Derate above 25°C		P_{TOT}	350	mW
Typical Thermal Resistance		$R_{\Theta JA}$	357	°C/W
Operating Junction Temperature		T_J	150	°C
Storage Temperature Range		T_{STG}	-55~+150	°C

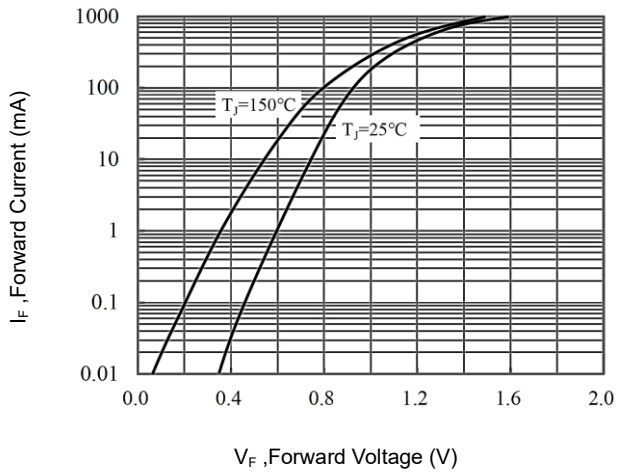
ELECTRICAL CHARACTERISTICS

Parameter	Conditions	Symbol	Min	Typ.	Max	Unit
Reverse Breakdown Voltage	I_R= 100μA	$V_{(BR)R}$	350	--	--	V
Instantaneous Forward Voltage	I_F= 20mA	V_F	--	--	0.87	V
	I_F= 100mA		--	--	1.0	
	I_F= 200mA		--	--	1.25	
Reverse Leakage Current	V_R=240V	I_R	--	--	100	nA
	V_R=240V, T_J=150°C		--	--	100	μA
Capacitance	V_R= 0V, f=1MHz	C_d	--	--	5	pF
Reverse Recovery Time	I_F=I_R=30mA, I_{rr}= 0.1xI_R, R_L=100Ω	t_{rr}	--	--	50	ns

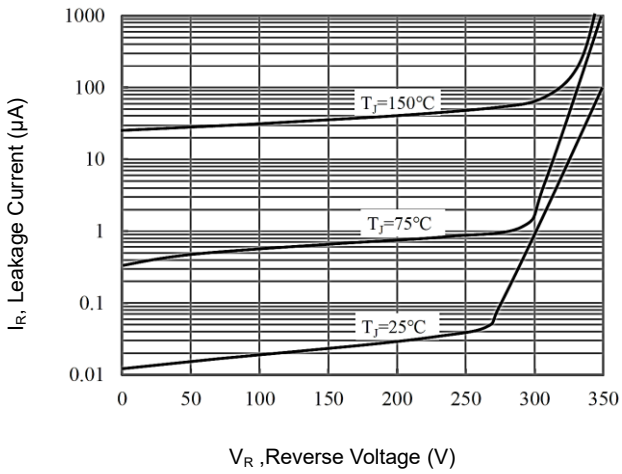
Note:
1. T_A = 25°C unless otherwise specified.
2. Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout

CHARACTERISTIC CURVES

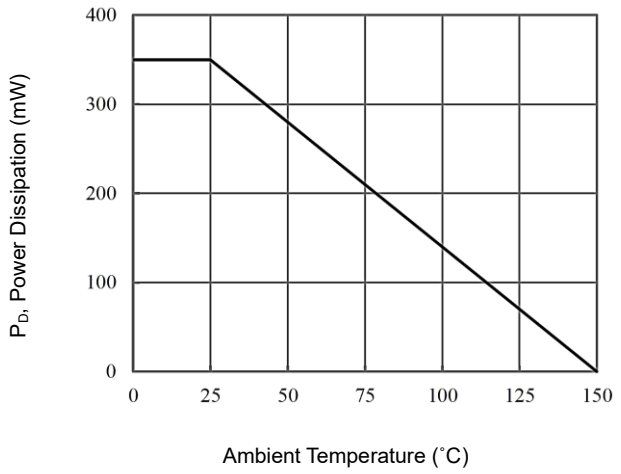
Typical Forward Characteristics



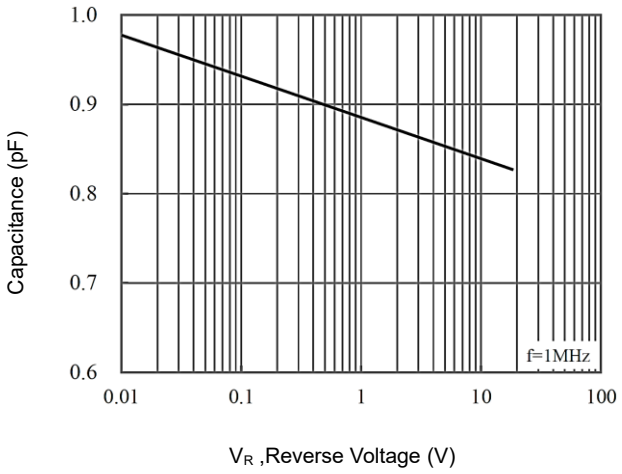
Typical Reverse Characteristics



Power Derating Curve

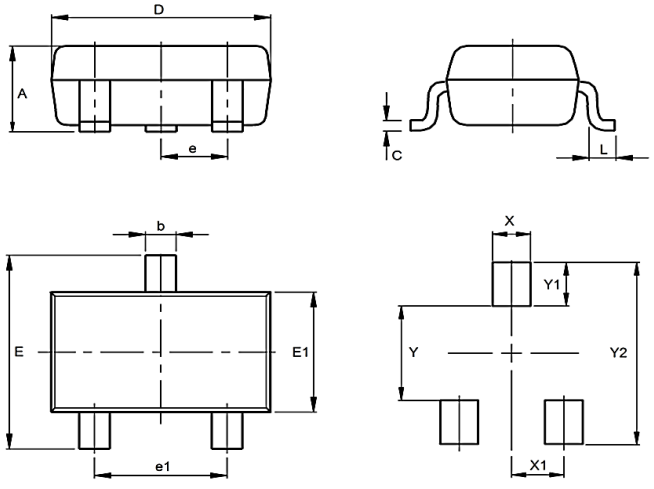


Capacitance Characteristics



DIMENSIONS

Item	Min (mm)	Max (mm)
A	0.89	1.40
b	0.30	0.50
c	0.08	0.20
D	2.70	3.10
e	0.95	
e1	1.78	2.04
E	2.10	2.80
E1	1.20	1.60
L	0.15	-
X	0.80	
X1	0.95	
Y	1.00	
Y1	1.00	
Y2	3.00	



*Specifications subject to change without notice.