LITE-ON SEMICONDUCTORS

MMBD4448V

SURFACE MOUNT
FAST SWITCHING DIODE

REVERSE VOLTAGE – 75 Volts
FORWARD CURRENT – 0.2 Ampere

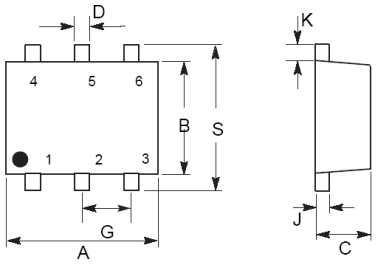
FEATURES

- Fast switching speed
- Ideally suited for automatic insertion
- For general purpose switching applications

MECHANICAL DATA

- Case: SOT-563 Plastic
- Case material: "Green" molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl)
- Moisture sensitivity: Level 1 per J-STD-020D
- Lead free in RoHS 2002/95/EC compliant

SOT-563



SOT-563		
Dim.	Min.	Max.
A	1.50	1.70
B	1.10	1.30
C	0.525	0.60
D	0.17	0.27
G	0.45	0.55
J	0.09	0.16
K	0.10	0.30
S	1.50	1.70
Dimensions in millimeter		

Maximum Ratings & Thermal Characteristics @ T_A = 25℃ unless otherwise specified

Characteristic	Symbol	MMBD4448V	Units
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Repetitive Peak Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	80	V
RMS Reverse Voltage	$V_{R(RMS)}$	57	V
Forward Continuous Current	I_{FM}	500	mA
Average Rectified Output Current	I_O	250	mA
Non-Repetitive Peak Forward Current @t=1us @t=1s	I_{FSM}	4 1.5	A
Power Dissipation	P_D	150	mW
Thermal Resistance Junction to Ambient	$R_{\Theta JA}$	833	℃/W
Operating Temperature Range	T_J	150	℃
Storage Temperature Range	T_{STG}	-65~+150	℃

Electrical Characteristics @ T_A = 25℃ unless otherwise specified

Characteristic	Test Condition	Symbol	MMBD4448V	Unit
Reverse Breakdown Voltage	I_R = 2.5uA	V_{BR}	80	V
Maximum Forward Voltage	I_F = 5mA I_F = 10mA I_F = 100mA I_F = 150mA	V_F	720 855 1000 1250	mV
Maximum DC Reverse Current at Rated DC Blocking Voltage	V_R = 70V V_R = 20V	I_R	100 25	nA
Capacitance between terminals	V_R =6V,f=1MHz	C_T	3.5	pF
Reverse Recovery time	V_R =6V, I_F=5mA	trr	4	ns

RATING AND CHARACTERISTIC CURVES
MMBD4448V

Fig.1 Power Derating Curve

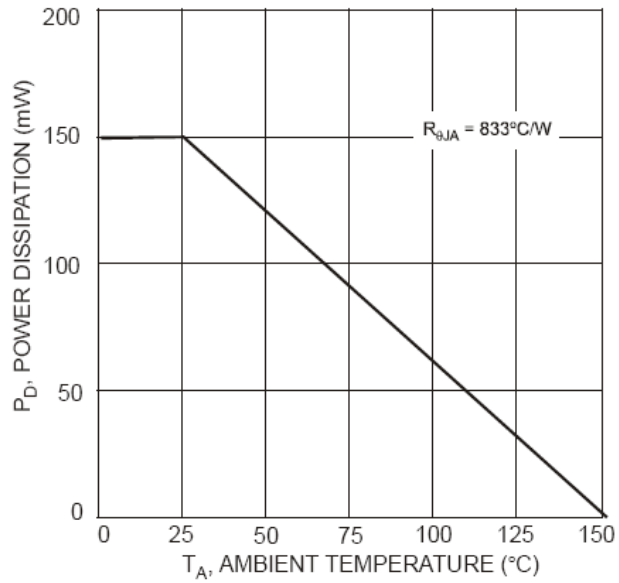


Fig.2 Typical Forward Characteristics

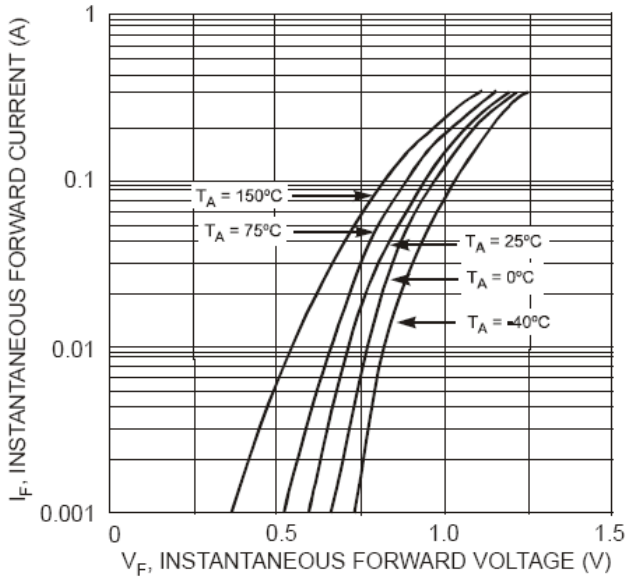


Fig.3 Typical Reverse Characteristics

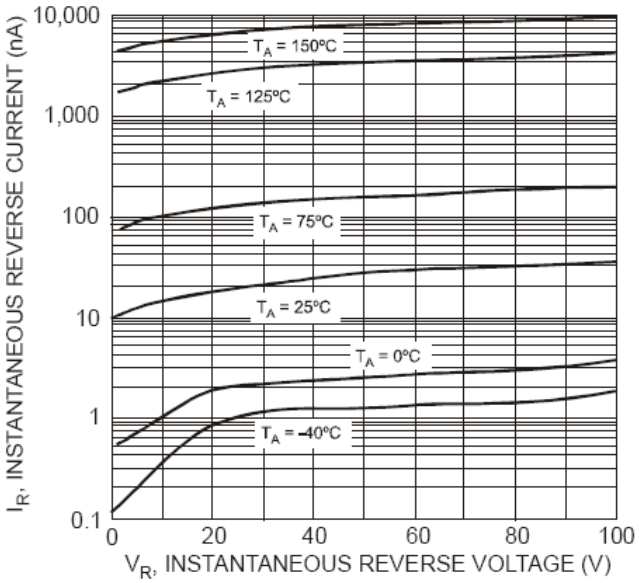
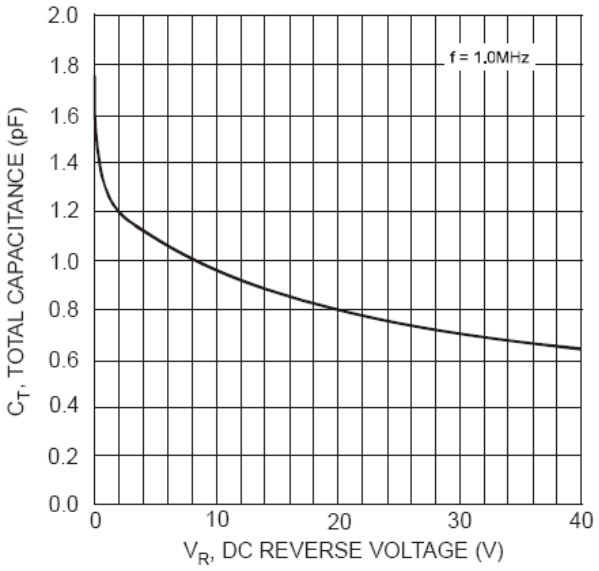


Fig.4 Total Capacitance vs. Reverse Voltage



Device Marking :

Device P/N	Marking code	Equivalent Circuit Diagram
MMBD4448V	KAL	

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