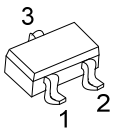
DUAL SURFACE MOUNT SWITCHING DIODE



SOT-23
(JEDEC TO-236)

■ DESCRIPTION

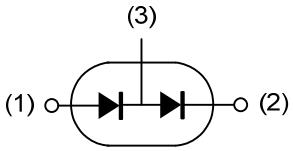
The UTC **MMBD7000** is dual surface mount switching diode, designed for For general purpose switching application.

The devices is manufactured by the silicon epitaxial planar process and packed in plastic surface mount package.

■ FEATURES

* High conductance
* Ultra-high speed
* Low forward voltage
* Fast reverse recovery time

■ SYMBOL



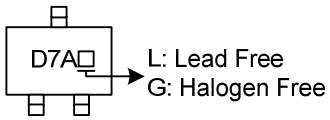
■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen-Free		1	2	3	
MMBD7000L-AE3-R	MMBD7000G-AE3-R	SOT-23	A1	K2	K1A2	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

MMBD7000G-AE3-R (1)Packing Type (2)Package Type (3)Green Package	(1) R: Tape Reel (2) AE3: SOT-23 (3) G: Halogen Free and Lead Free, L: Lead Free

■ MARKING



■ ABSOLUTE MAXIMUM RATINGS (T_A=25℃, unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT
Non-Repetitive Peak Reverse Voltage		V_{RM}	100	V
Maximum Repetitive Reverse Voltage		V_{RRM}	75	V
Average Rectified Forward Current		$I_{F(AV)}$	300	mA
Non-repetitive Peak Forward Surge Current	t=1.0μs	I_{FSM}	2	A
	t=1.0s		1	A
Power Dissipation (Note 3)		P_D	350	mW
Junction Temperature		T_J	+150	°C
Storage Temperature		T_{STG}	-65 ~ +150	°C

Note: 1. These ratings are based on a maximum junction temperature of 200°C.
2. 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.
3. Device mounted on FR-4 PCB minimum land pad

■ THERMAL DATA

CHARACTERISTIC	SYMBOL	RATINGS	UNIT
Junction to Ambient	θ_{JA}	357	°C/W

■ ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Breakdown Voltage	V_R	I_R=100μA	75			V
Forward Voltage	V_F	I_F=1mA	0.55		0.70	V
		I_F=10mA	0.67		0.82	V
		I_F=50mA	0.75		1.10	V
		I_F=150mA			1.25	V
Reverse Current	I_R	V_R=20V			25	nA
		V_R=50V			1.0	μA
		V_R=50V, T_J=125°C			100	μA
		V_R=100V			3.0	μA
Total Capacitance	C_T	V_R=0V, f =1.0MHz			2.0	pF
Reverse Recovery Time	t_{rr}	I_F=I_R=10mA, I_{RR}=0.1×I_R, R_L=100Ω			4.0	ns