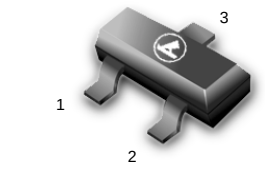
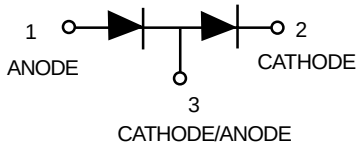
Dual Hot Carrier Mixer Diodes

MMBD352LT1
MMBD353LT1
MMBD354LT1
MMBD355LT1

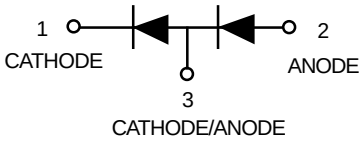
These devices are designed primarily for UHF mixer applications but are suitable also for use in detector and ultra–fast switching circuits.

- Very Low Capacitance — Less Than 1.0 pF @ Zero Volts
- Low Forward Voltage — 0.5 Volts (Typ) @ I_F = 10 mA

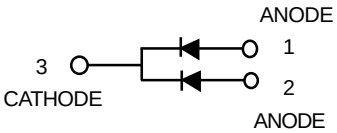




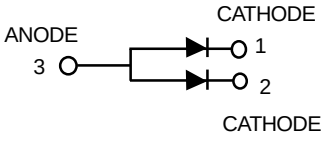
MMBD352LT1
CASE 318–08, STYLE 11
SOT– 23 (TO–236AB)



MMBD353LT1
CASE 318–08, STYLE 19
SOT– 23 (TO–236AB)



MMBD354LT1
CASE 318–08, STYLE 9
SOT– 23 (TO–236AB)



MMBD355LT1
CASE 318–08, STYLE 12
SOT– 23 (TO–236AB)

MAXIMUM RATINGS (EACH DIODE)

Rating	Symbol	Value	Unit
Continuous Reverse Voltage	V_R	7.0	V_{CC}

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Total Device Dissipation FR– 5 Board (1) T_A = 25°C	P_D	225	mW
Derate above 25°C		1.8	mW/°C
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	556	°C/W
Total Device Dissipation Alumina Substrate (2) T_A = 25°C	P_D	300	mW
Derate above 25°C		2.4	mW/°C
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	417	°C/W
Junction and Storage Temperature	T_J, T_{stg}	–55 to +150	°C

DEVICE MARKING

MMBD352LT1 = M5G; MMBD353LT1 = M4F; MMBD354LT1 = M6H; MMBD355LT1 = MJ1

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted) (EACH DIODE)

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Forward Voltage (I_F = 10 mAdc)	V_F	—	0.60	V
Reverse Voltage Leakage Current	I_R			µA
(V_R = 3.0 V)		—	0.25	
(V_R = 7.0 V)		—	10	
Capacitance (V_R = 0 V, f = 1.0 MHz)	C	—	1.0	pF

1. FR–5 = 1.0 x 0.75 x 0.062 in.
2. Alumina = 0.4 x 0.3 x 0.024 in. 99.5% alumina.

MMBD352LT1 MMBD353LT1
MMBD354LT1 MMBD355LT1

TYPICAL CHARACTERISTICS

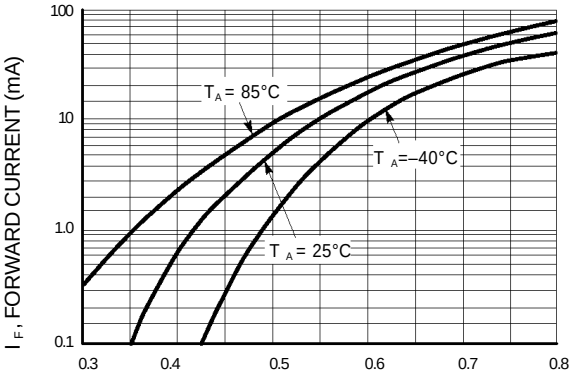


Figure 1. Forward Voltage

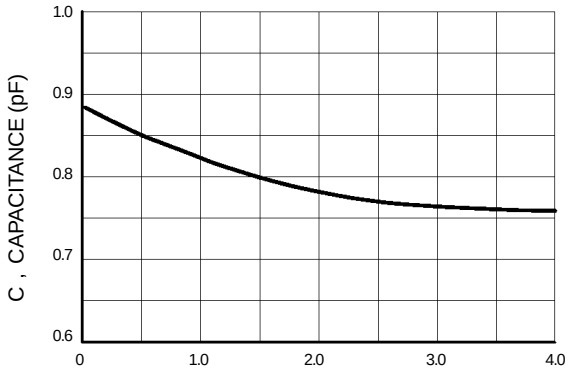


Figure 2. Capacitance