




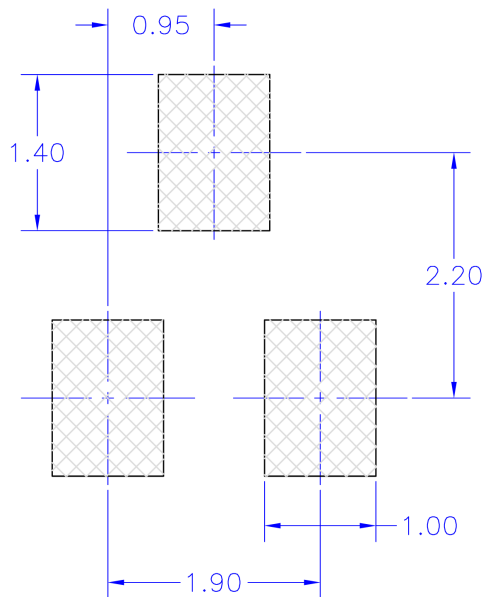
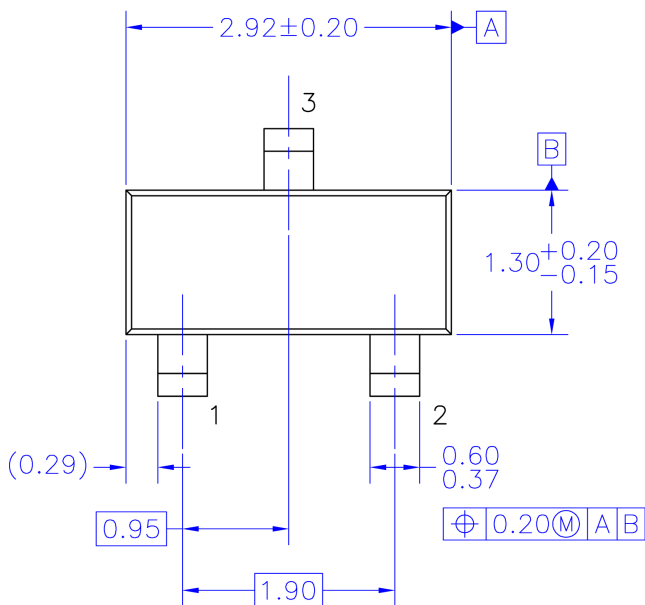
MMBD4148

High Conductance Ultra Fast Diode

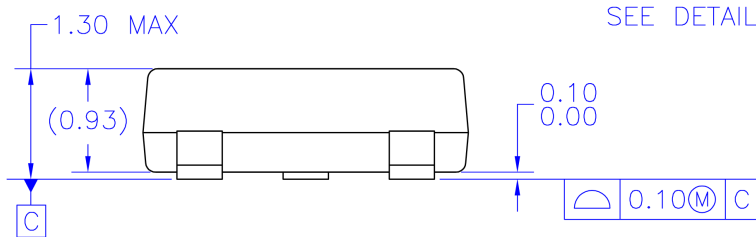
Product	Product status	 Eco Status		Package type	Leads	Packing method
MMBD4148	Full Production	RoHS Compliant		SOT-23	3	TAPE REEL
MMBD4148_D87Z	Full Production	RoHS Compliant		SOT-23	3	TAPE REEL

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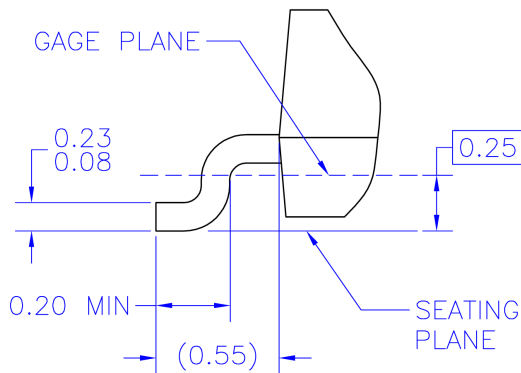
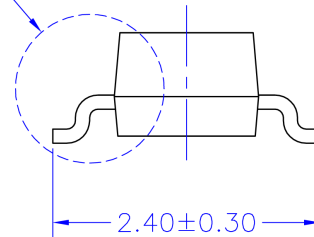
REVISIONS				
LTR	DESCRIPTION	E.C.N.	DATE	BY/APP'D
F	REVISE & REDRAW PER CURRENT STDA; ADD LAND PATTERN		CB/112/06	TL
G	ADD 0.004 [0.10] COPLANARITY; NOTE 1: 200 WAS 150; 5.08 WAS 3.81		CB/119/26	MS
H	CHG DWG TEMPL FR NSC TO FSC; CHG DIM STD FR DUAL TO SINGLE; CHG PKG LEN DIM FR 2.92+/-0.13 TO 2.92+/-0.20; CHG PKG WID FR 1.30+/-0.10 TO 1.30+0.20/-0.15; CHG TOT PKG THIC FR 0.88-1.08 TO 1.30 MAX; CHG PROFILE FR 0.013-0.103 TO 0.00-0.10; CHG LD THIC FR 0.13+/-0.05 TO 0.08-0.23; CHG LD WID FR 0.445+/-0.064 TO 0.37-0.60; CHG LD PITCH FR 0.953+/-0.064 TO 0.95 BSC; CHG TOT LD PITCH FR 1.91+/-0.13 TO 1.90 BSC; CHG LAND PATTERN DIM FR 0.762 TYP TO 1.00, FR 0.762 TYP TO 1.40, FR 2.286 TYP TO 2.20; ADDED DIM (0.29); CHG NOTE A FR "STD LD FINISH SPEC" TO "JEDEC REF"; CHG NOTE B FR "JEDEC REF" TO "DIM REF"; ADDED NOTE C&D; ADD LD POS.TOL		CB/214/03	MRC



LAND PATTERN RECOMMENDATION



SEE DETAIL A



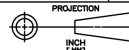
DETAIL A
SCALE: 50:1

NOTES: UNLESS OTHERWISE SPECIFIED

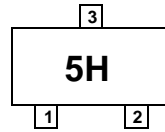
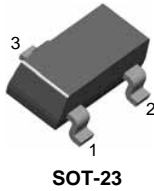
- A) REFERENCE JEDEC REGISTRATION TO-236, VARIATION AB, ISSUE H, DATED JAN 1999.
- B) ALL DIMENSIONS ARE IN MILLIMETERS.
- C) DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH AND TIE BAR EXTRUSIONS.
- D) DIMENSIONING AND TOLERANCING PER ASME Y14.5M - 1994.

MA03BREVH

APPROVALS	DATE		CEBU PHILIPPINES	
DRAWN: J. GOMEZ			3LD, SOT23, JEDEC TO-236, LOW PROFILE	
CHECKED: R. MANABIT				
APPROVED: M. GESTOLE				
G.S. BAJE		SCALE: 25:1 SIZE: A3 FORMERLY: N/A	DRAWING NUMBER: MKT-M03B REV: H	SHEET: 1 OF 1

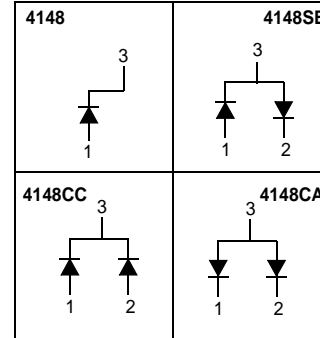


MMBD4148/SE/CC/CA



MMBD4148 5H MMBD4148CA D6
MMBD4148CC D5 MMBD4148SE D4

Connection Diagram



Small Signal Diode

Absolute Maximum Ratings * $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{RRM}	Maximum Repetitive Reverse Voltage	100	V
$I_{F(AV)}$	Average Rectified Forward Current	200	mA
I_{FSM}	Non-repetitive Peak Forward Surge Current		
	Pulse Width = 1.0 second	1.0	A
	Pulse Width = 1.0 microsecond	2.0	A
T_{STG}	Storage Temperature Range	-55 to +150	$^\circ\text{C}$
T_J	Operating Junction Temperature	150	$^\circ\text{C}$

* These ratings are limiting values above which the serviceability of the diode may be impaired.

Thermal Characteristics

Symbol	Parameter	Value	Units
P_D	Power Dissipation	350	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	357	$^\circ\text{C/W}$

Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Conditions	Min.	Max.	Units
V_R	Breakdown Voltage	$I_R = 5.0\mu\text{A}$	75		V
		$I_R = 100\mu\text{A}$	100		V
V_F	Forward Voltage	$I_F = 10\text{mA}$		1.0	V
I_R	Reverse Leakage Current	$V_R = 20\text{V}$		25	nA
		$V_R = 20\text{V}, T_A = 150^\circ\text{C}$		50	μA
		$V_R = 75\text{V}$		5.0	μA
C_T	Total Capacitance	$V_R = 0\text{V}, f = 1.0\text{MHz}$		4.0	pF
t_{rr}	Reverse Recovery Time	$I_F = 10\text{mA}, V_R = 6.0\text{V}, I_{RR} = 1.0\text{mA}, R_L = 100\Omega$		4.0	ns