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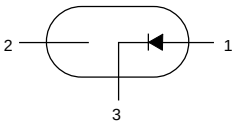
SOT-23 Formed SMD Package **CMBD4150**

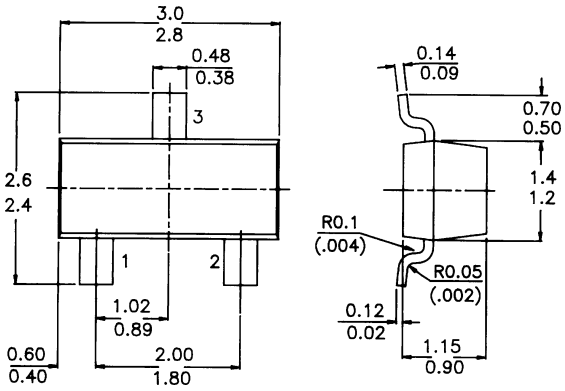
SILICON PLANAR EPITAXIAL HIGH SPEED DIODE

Marking
CMBD4150 = D18

PACKAGE OUTLINE DETAILS
ALL DIMENSIONS IN mm

Pin configuration
1 = ANODE
2 = NC
3 = CATHODE





ABSOLUTE MAXIMUM RATINGS

Continuous reverse voltage	V_R		*50*	*V*
Repetitive peak reverse voltage	V_{RRM}	*max.*	*75*	*V*
Repetitive peak forward current	I_{FRM}	*max.*	*600*	*mA*
Junction temperature	T_j	*max.*	*150*	*° C*
Peak forward surge current				
T = 1 µsec.	I_{FSM}	*max.*	*4*	*A*
T = 1 sec.	I_{FSM}	*max.*	*0.5*	*A*
Reverse recovery time when switched from				
I_F = 400 mA to I_R = 400 mA; R_L = 100 Ω				
measured at I_R = 4 mA	T_{rr}	*max.*	*6*	*ns*

RATINGS (at T_A = 25 °C, unless otherwise specified)

Storage Temperature	T_{stg}	*–55 to +150*	*° C*

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THERMAL RESISTANCE				
From junction to ambient	$Rth\ j–a$		500	K/W
CHARACTERISTICS (at T_A = 25 °C, unless otherwise specified)				
Continuous reverse voltage	V_R	max.	50	V
Repetitive peak reverse voltage	V_{RRM}	max.	75	V
Forward current (d.c.)	I_F	max.	300	mA
Repetitive peak forward current	I_{FRM}	max.	600	mA
Non–repetitive peak forward current				
T = 1 µsec	I_{FSM}	max.	4	A
T = 1 sec	I_{FSM}	max.	0.5	A
Diode capacitance				
V_R = 0; f = 1 MHz	C_D	max.	2.5	pF
Forward voltage				
I_F = 1 mA	V_F	min.	540	mV
		max.	620	mV
I_F = 10 mA	V_F	min.	660	mV
		max.	740	mV
I_F = 50 mA	V_F	min.	760	mV
		max.	860	mV
I_F = 100 mA	V_F	min.	820	mV
		max.	920	mV
I_F = 200 mA	V_F	min.	870	mV
		max.	1	V
Reverse breakdown voltage				
I_R = 100 mA	V_{BR}	min	75	V
Reverse voltage leakage current				
V_R = 50 V	I_R	max.	100	nA
Reverse current				
V_R = 50 V; T_j = 150 °C	I_R	max.	100	µA
Forward recovery voltage				
when switched to I_F = 10 mA; t_P = 20 nsec.	V_{FR}	max.	1.75	V
Reverse recovery time				
$I_F = I_R$ = 10 – 200 mAdc, R_L = 100 Ω	t_{rr}	max.	4	ns
$I_F = I_R$ = 200 – 400 mAdc, R_L = 100 Ω	t_{rr}	max.	6	ns

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Customer Notes

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