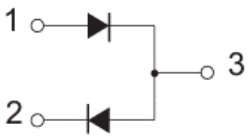
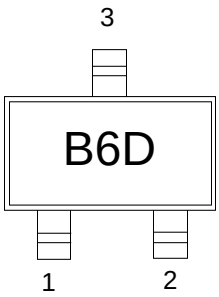
Features

CMSD2004S type is a silicon switching dual in series diode manufactured by the epitaxial planar process, designed for applications requiring high voltage capability. Power dissipation

SOT-323 top view



Schematic diagram



Marking and pin assignment

Pb-Free RoHS Halogen-Free

Maximum Ratings @Ta=25℃

Symbol	Parameter	Value	Unit
V_{RM}	Non-Repetitive Peak Reverse Voltage	300	V
V_R	Reverse Voltage	240	V
I_F	Forward Current	225	mA
Io	Average Rectified Output Current	200	mA
I_{FRM}	Peak Repetitive Forward Current	625	mA
I_{FSM}	Non-Repetitive Peak Forward Surge Current @t=8.3ms	2.5	A
P_D	Power Dissipation	250	mW
$R_{\theta JA}$	Thermal Resistance Junction to Ambient	500	℃/W
T_J , T_{STG}	Operating and Storage Temperature Range	-55~ +150	℃

ELECTRICAL CHARACTERISTICS (Ta=25℃ unless otherwise specified)

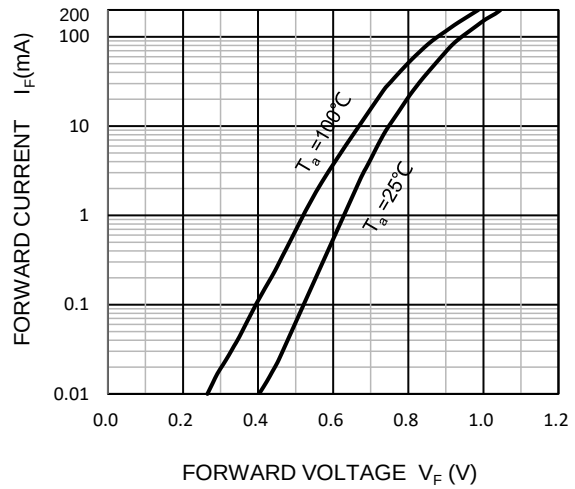
Symbol	Parameter	Condition	Min	Typ	Max	Unit
$V_{(BR)}$	Reverse voltage	I_R=100μA	240	--	--	V
I_R	Reverse current	V_R=240V	--	--	0.1	mA
V_F	Forward voltage	I_F=100mA	--	--	1	V
C_D	Diode capacitance	V_R=0, f=1MHz	--	--	5	pF
t_{rr}	Reverse recovery time	I_F=I_R=30mA,R_L=100Ω	--	--	50	ns

Ordering Information (Example)

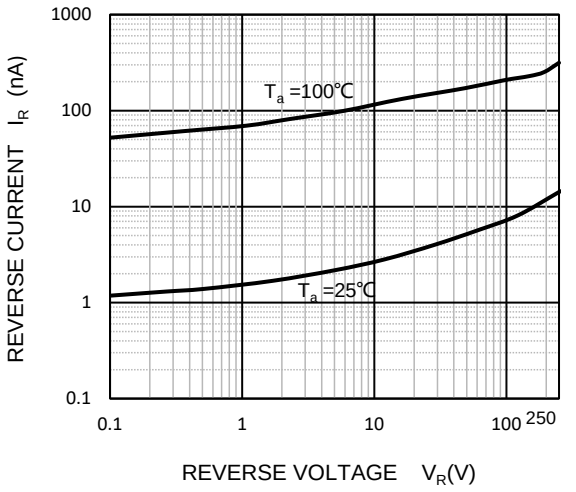
Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
CMSD2004S	SOT-323	B6D	3,000	45,000	180,000	7"reel

Typical Operating Characteristics

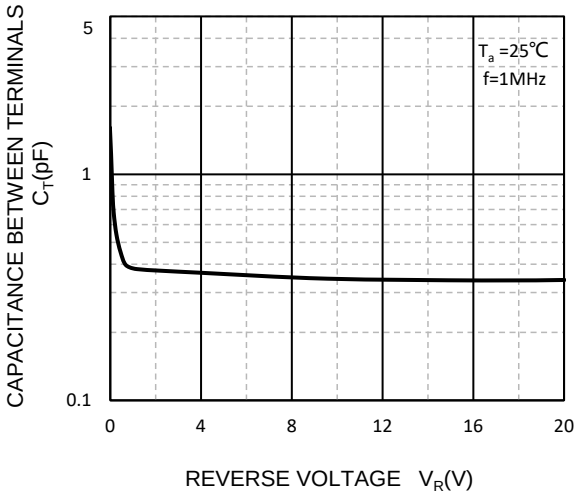
Forward Characteristics



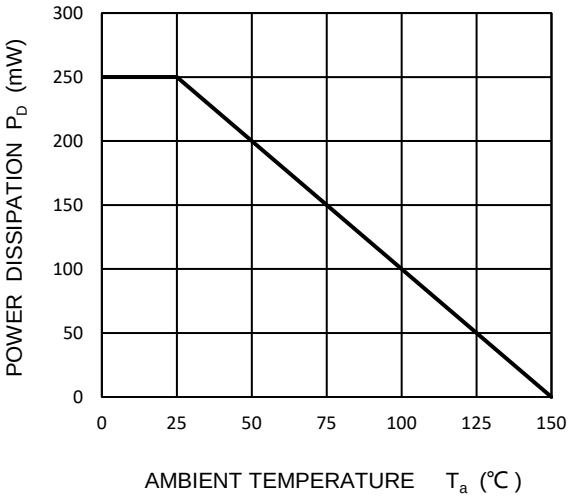
Reverse Characteristics



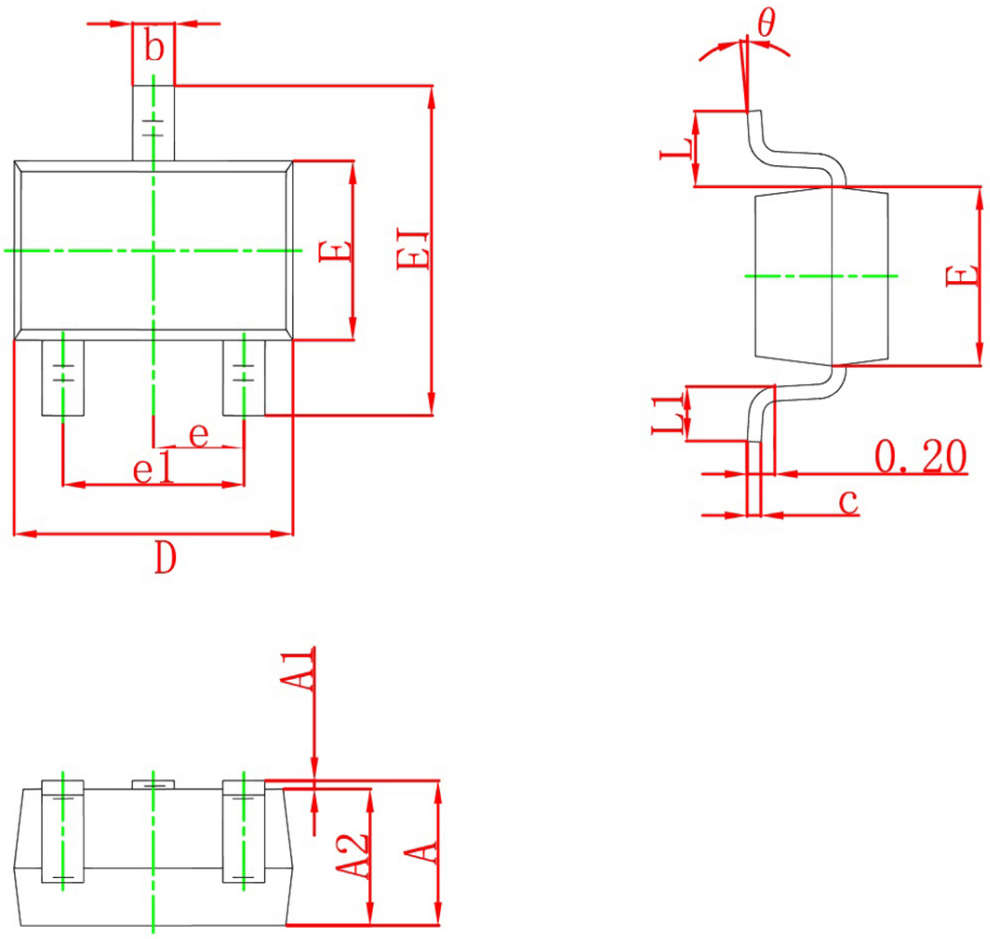
Capacitance Characteristics



Power Derating Curve



SOT-323 Package information



Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.450	0.085	0.096
e	0.650TYP		0.026TYP	
e1	1.200	1.400	0.047	0.055
L	0.525REF		0.021REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°