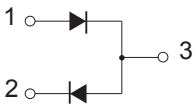
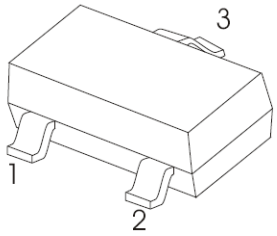
SWITCHING DIODE

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

MARKING : B6D





SOT-323

Maximum Ratings @T_a=25℃

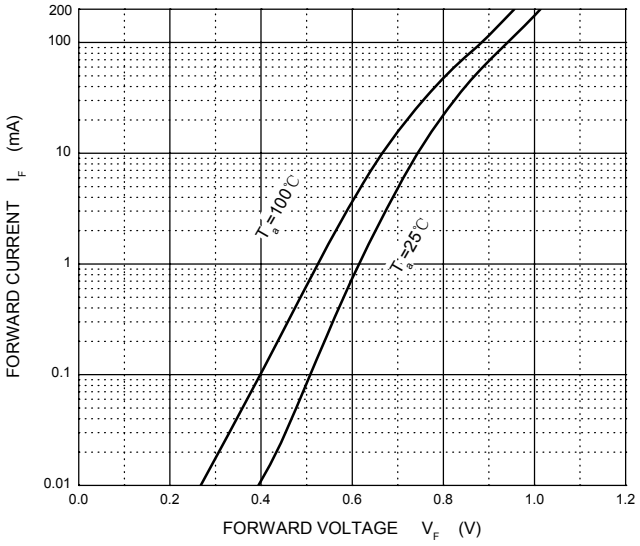
Parameter	Symbol	Limit	Unit
Non-Repetitive Peak reverse voltage	V_{RM}	300	V
DC Blocking Voltage	V_R	240	V
Average Rectified Output Current	**Io**	200	mA
Continuous Forward Current	**I_F**	225	mA
Peak Repetitive Forward Current	**I_{FRM}**	625	mA
Non-Repetitive Peak Forward Surge Current @t=8.3ms	**I_{FSM}**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

ELECTRICAL CHARACTERISTICS (Ta=25℃ unless otherwise specified)

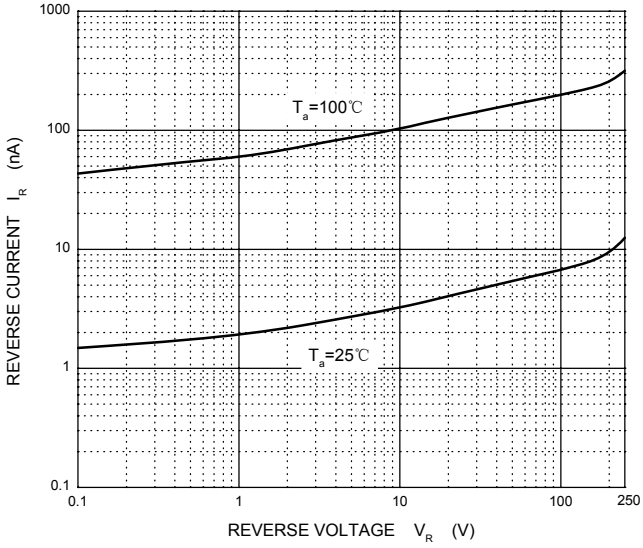
Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	I_R= 100μA	240		V
Reverse voltage leakage current	I_R	V_R=240V		0.1	mA
Forward voltage	V_F	I_F=100mA		1	V
Diode capacitance	C_D	V_R=0V,f=1MHz		5	pF
Reveres recovery time	t_{rr}	I_F=I_R=30mA,R_L=100Ω		50	ns

Typical Characteristics

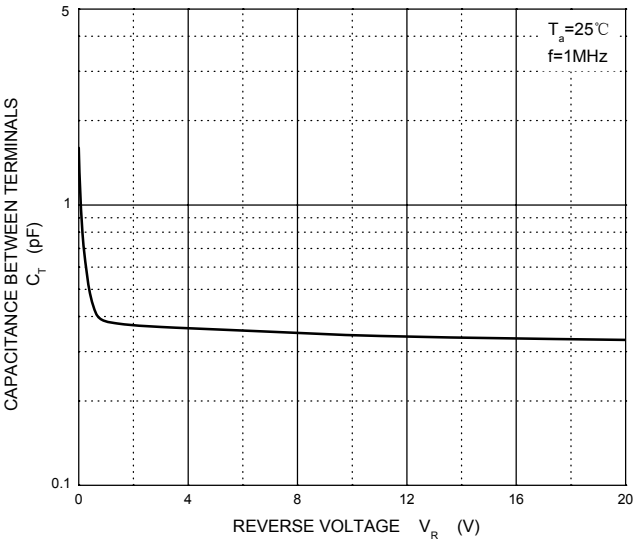
Forward Characteristics



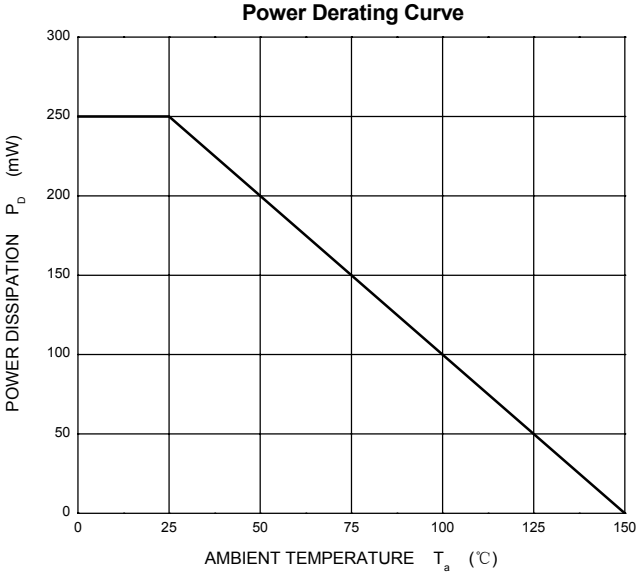
Reverse Characteristics



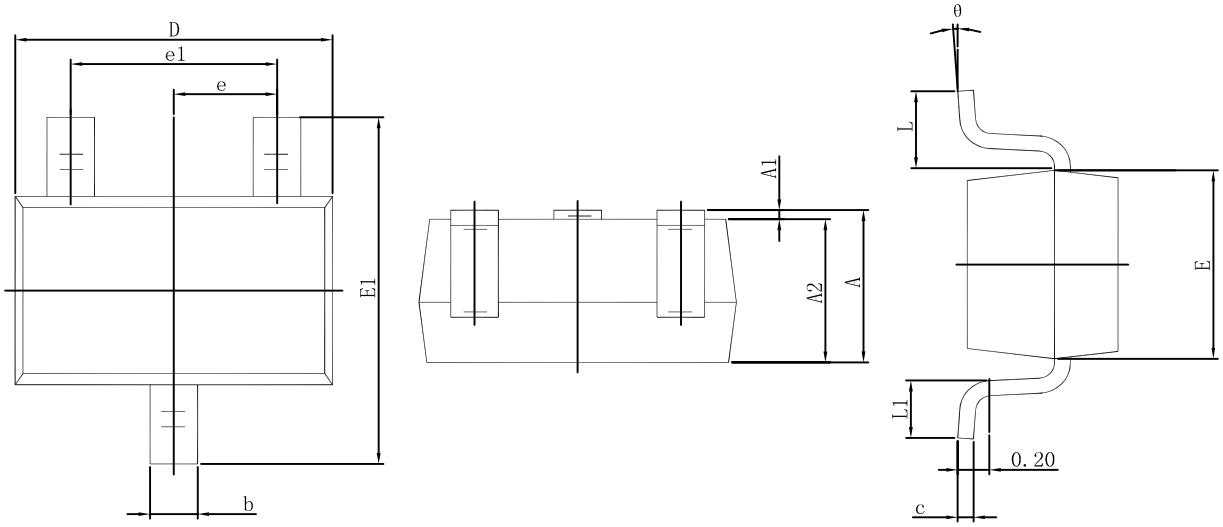
Capacitance Characteristics Per Diode



Power Derating Curve



SOT-323 Package Outline Dimensions



Symbol	Dimensions In Millimeters		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	0.650 TYP.		0.026 TYP.	
e1	1.200	1.400	0.047	0.055
L	0.525 REF.		0.021 REF.	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°