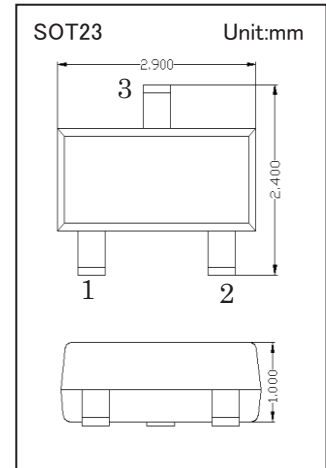
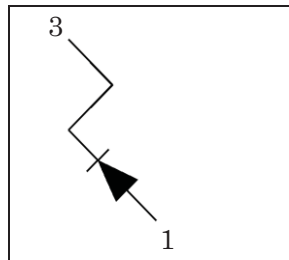


Switching Diode

- ◇ Fast Switching Speed
- ◇ For General Purpose Switching Applications
- ◇ High Conductance
- ◇ Low Current Leakage
- ◇ Small Outline Surface Mount Package
- ◇ RoHS compliant / Green EMC

Device Marking Code	
TCMBD914	KA2

Equivalent Circuit



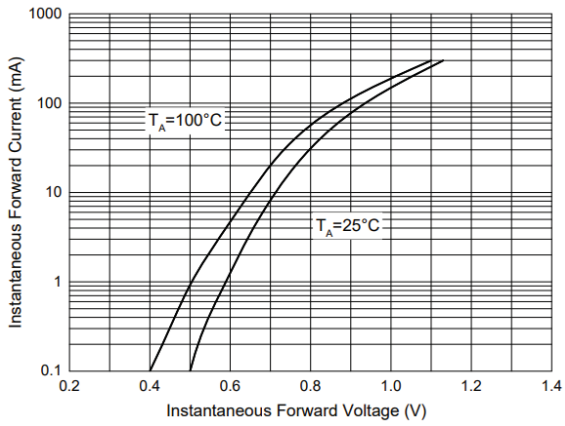
Maximum Ratings (Ta = 25 °C)

Symbol	Parameter	Value	Units
V_R	Continuous Reverse Voltage	75	V
V_{RRM}	Non Repetitive Peak Reverse Voltage	100	V
I_{FM}	Forward Continuous Current	250	mA
I_O	Average Rectified Output Current	200	mA
I_{FSM}	Non-R Repetitive Peak Forward Surge Current @8.3mS	2	A
P_D	Power Dissipation	350	mW
$R_{\theta JA}$	Thermal Resistance Junction to Ambient	357	°C/W
T_{STG}	Storage Temperature Range	-55~+150	°C
T_J	Junction Temperature	150	°C

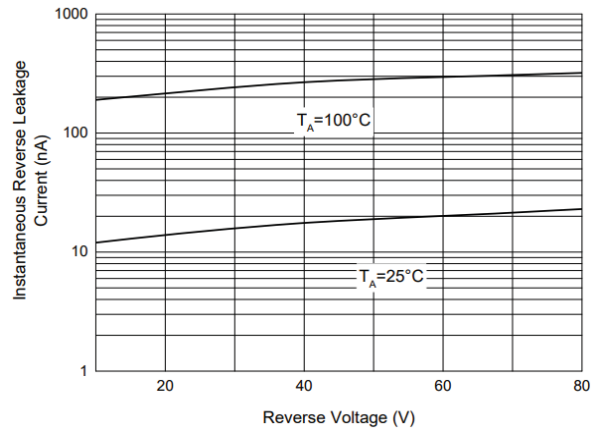
Electrical Characteristics (Ta = 25 °C)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Units
V_R	Reverse Breakdown Voltage	$I_R=100\mu A$	100			V
		$I_R=5\mu A$	75			
V_F	Forward Voltage	$I_F=1mA$			0.715	V
		$I_F=10mA$			0.855	
		$I_F=50mA$			1	
		$I_F=150mA$			1.25	
I_R	Reverse Voltage Leakage Current	$V_R=20V$			25	nA
		$V_R=75V$			1	uA
C_J	Typical Junction Capacitance	$V_R=0V, f=1.0MHz$			2	pF
T_{rr}	Reverse Recovery Time	$I_F=I_R=10mA, I_{rr}=0.1mA, R_L=100\Omega$			4	nS

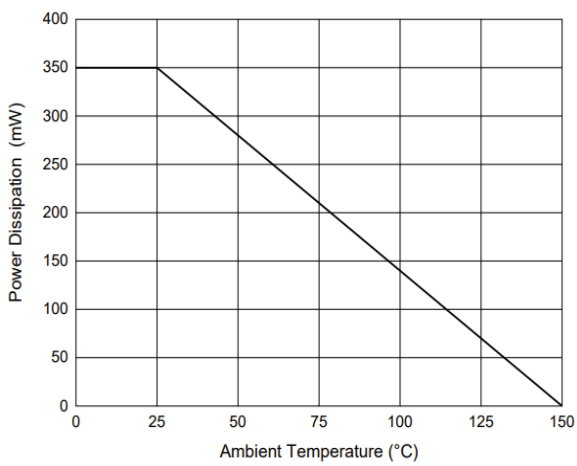
RATING AND CHARACTERISTICS CURVES (TCMBD914)



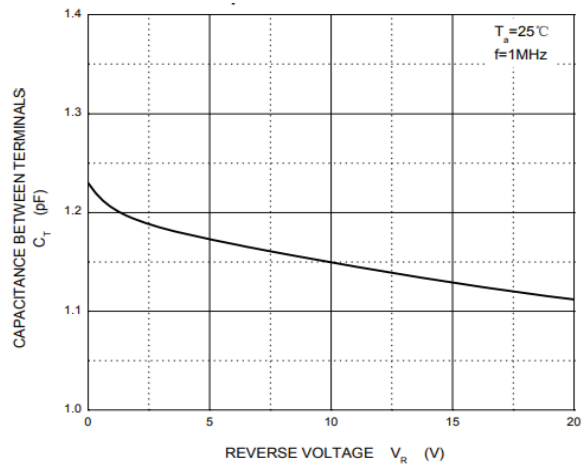
Typical Instantaneous Forward Characteristics



Typical Reverse Leakage Characteristics



Power Derating Curve



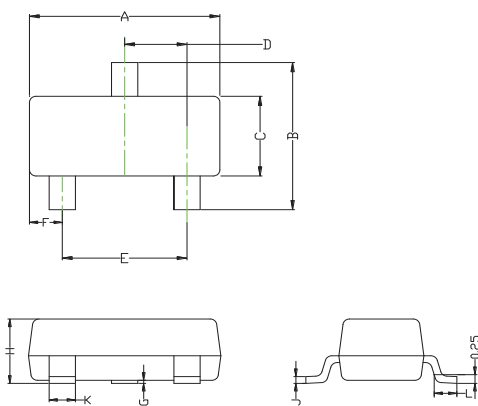
Capacitance Characteristics

Ordering Information

Device	Package	Shipping	Tape wide	Emboss pitch	Tape specification	Notes
	SOT23	Tape & Reel 3000pcs /7" Reel	8mm	4mm	Conductive	

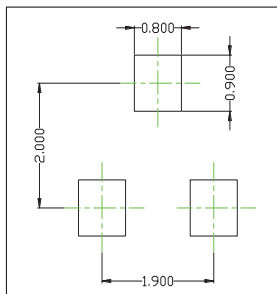
Package Dimensions

Package outline : SOT23



Symbol	Dimensions in mm	
	Min.	Max.
A	2.800	3.040
B	2.100	2.640
C	1.200	1.400
D	0.890	1.030
E	1.780	2.050
F	0.450	0.600
G	0.013	0.100
H	0.900	1.110
J	0.085	0.180
K	0.370	0.510
L	0.300	0.500

SOT23 Package Outline



Land Pattern Recommendation

Notice:

1. Lead plating: Pb free solder
2. Lead thickness includes solder plating
3. Lead frame: CAC-5
4. Other Tolerance: ± 0.05

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