



**SOT-23 Plastic-Encapsulate Diodes**

**MC2838** SWITCHING DIODE

**FEATURES**

Power dissipation

$$P_D : 150 \text{ mW ( } T_{amb}=25 \text{ )}$$

Forward Current

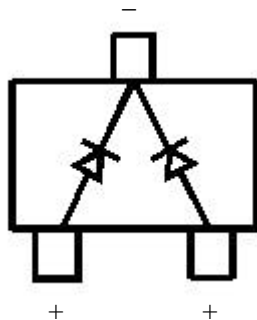
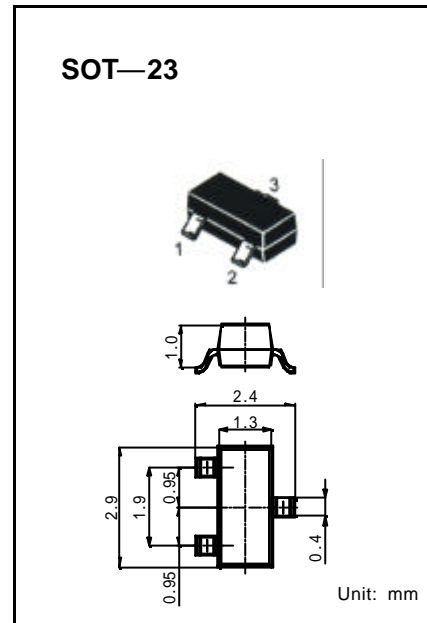
$$I_F : 300 \text{ mA}$$

Reverse Voltage

$$V_R : 50 \text{ V}$$

Operating and storage junction temperature range

$$T_J , T_{stg} : -55 \text{ to } +150$$

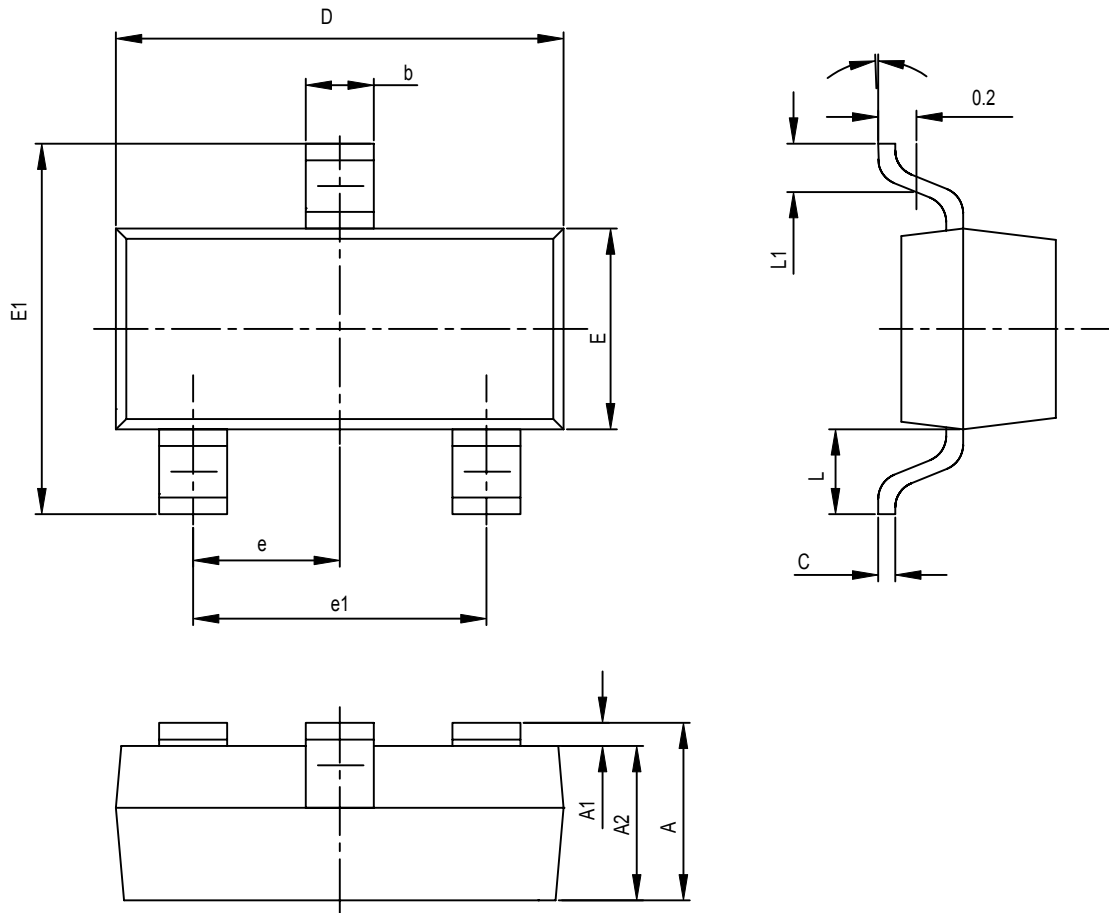


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**ELECTRICAL CHARACTERISTICS (  $T_{amb}=25$  unless otherwise specified )**

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Reverse breakdown voltage	$V_{(BR)}$	$I_R = 100 \mu A$	50		V
Reverse voltage leakage current	$I_R$	$V_R = 50V$		0.1	$\mu A$
Forward voltage	$V_F$	$I_F = 10mA$ $I_F = 50mA$ $I_F = 100mA$		0.9 1 1.2	V
Diode capacitance	$C_D$	$V_R = 0V$ $f = 1MHz$		4	pF
Reverse recovery time	$t_{rr}$	$I_F = I_R = 10mA, I_{RR} = 0.1 \times I_R$		3	nS

## SOT-23 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
<b>A</b>	0.900	1.100	0.035	0.043
<b>A1</b>	0.000	0.100	0.000	0.004
<b>A2</b>	0.900	1.000	0.035	0.039
<b>b</b>	0.300	0.500	0.012	0.020
<b>c</b>	0.080	0.150	0.003	0.006
<b>D</b>	2.800	3.000	0.110	0.118
<b>E</b>	1.200	1.400	0.047	0.055
<b>E1</b>	2.250	2.550	0.089	0.100
<b>e</b>	0.950TPY		0.037TPY	
<b>e1</b>	1.800	2.000	0.071	0.079
<b>L</b>	0.550REF		0.022REF	
<b>L1</b>	0.300	0.500	0.012	0.020
$\theta$	$0^\circ$	$8^\circ$	$0^\circ$	$8^\circ$