TPM2841 Series Datasheet

Silicon Schottky Diode

Descriptions

- DNmicron's TPM2841 series have good RF application performance
- For mixer applications in VHF/UHF range
- Used as DC bias detector diode
- For high-speed switching application
- The series of diodes could be packaged in a variety of formats, we assure that when two or more diodes are mounted into a single surface mount package, they are taken from adjacent sites on the wafer, assuring the highest possible degree of match.
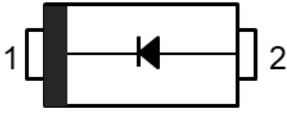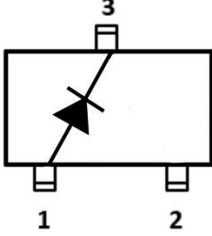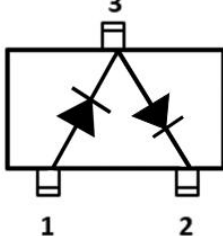
Features

- Multi packages SOD-523, SOT-23
- Tape and Reel Options Available
- Pb-free (RoHS compliant) package
- High matching of diode in package

Observe precautions for handling electrostatic sensitive devices.

ESD Machine Model (Class A)

ESD Human Body Model (Class 0)

Package Identification (Top View)

TPM2841 -01 SOD-523 Package	TPM2841 -02 SOT-23 Package	TPM2841 -03 SOT-23 Package

Maximum Ratings at T_c=+25℃, unless otherwise specified

Parameter	Symbol	Value	Unit
Diode reverse voltage	V_R	5	V
Forward Current	I_F	130	mA
Operating temperature	T_{op}	-55~125	℃
Storage temperature	T_{stg}	-55~150	℃

Electrical Characteristics at T_c=+25℃, unless otherwise specified

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC Characteristics					
Breakdown voltage $I_{(BR)}$=10 μA	$V_{(BR)}$	5	7	-	V
Reverse current V_R=3 V V_R=4 V V_R=3 V, T_c=60 ℃	I_R	- - -	0.7 1.1 3.8	- - -	μA
Forward voltage I_F=0.1 mA I_F=1 mA I_F=10 mA	V_F	- - -	190 260 370	- - -	mV
Forward voltage matching I_F=1 mA	$\triangle V_F$	-		2	mV
AC Characteristics					
Diode capacitance V_R= 0, f=1 MHz	C_T	-	0.42	-	pF
Differential forward resistance I_F = 5 mA, f=10 kHz	R_F	-	9	-	Ω

Typical performance
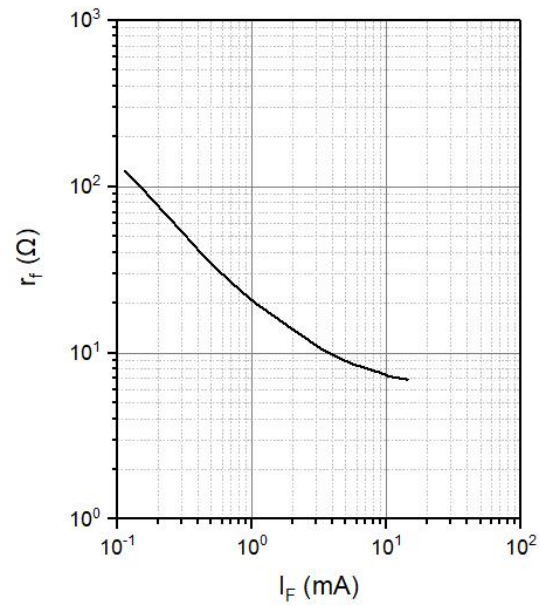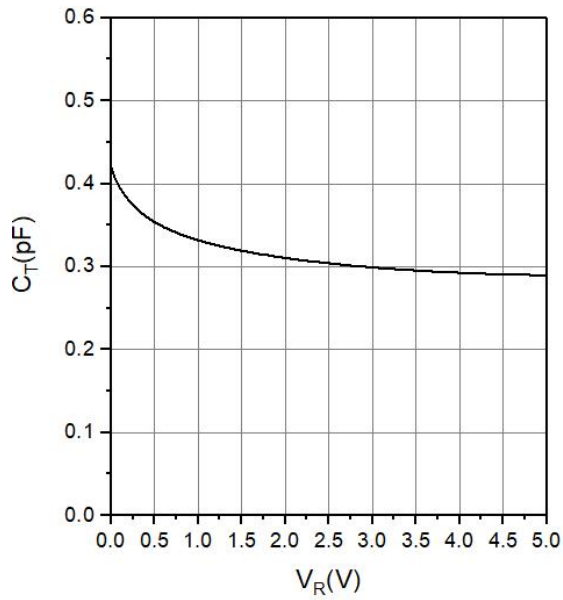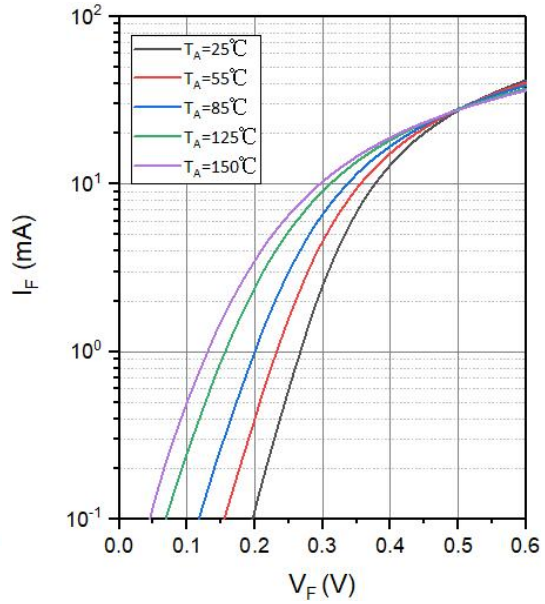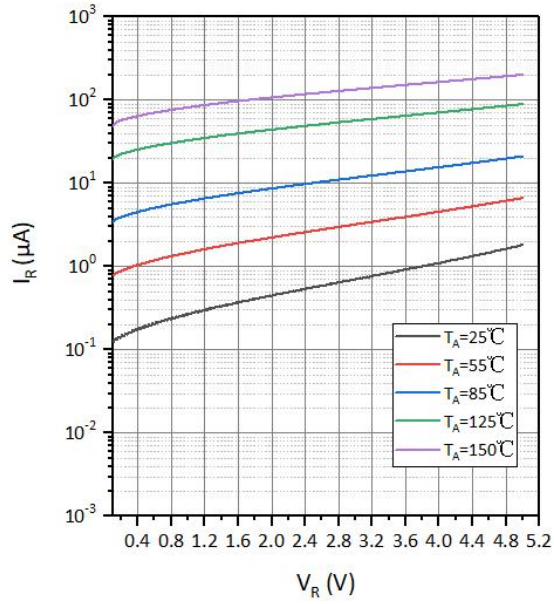
Package Outline

SOT-23
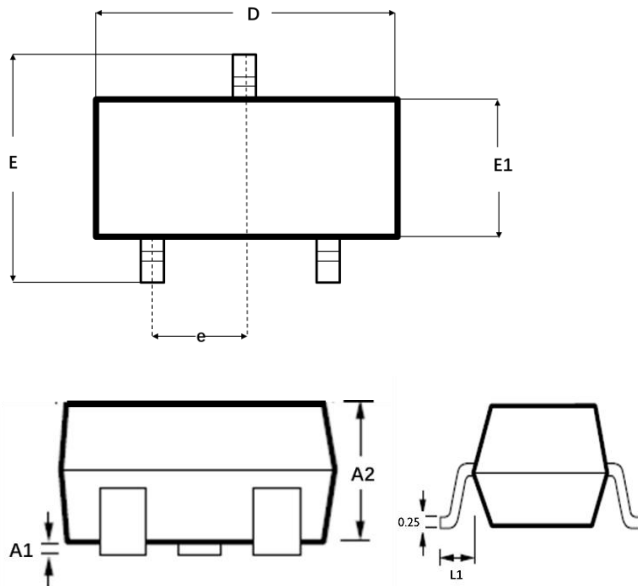
Symbol	Measure（mm）	
	Min	Max
A1	0.04	0.10
A2	1.00	1.20
D	2.82	3.02
E	2.60	3.00
E1	1.50	1.70
e	0.95BSC	
L1	0.60REF	

SOD-523
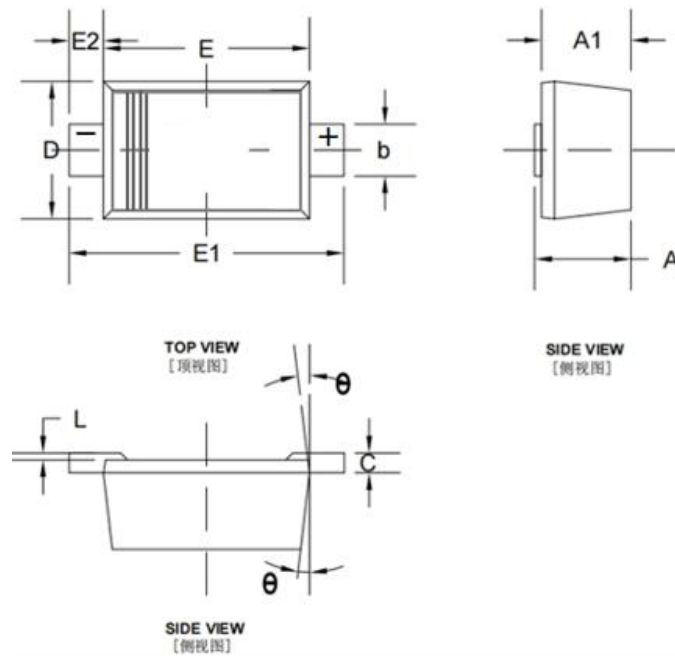
Symbol	Measure（mm）		
	Min	Typ	Max
A	0.460	0.560	0.660
A1	0.450	0.550	0.650
b	0.250	0.300	0.350
c	0.080	0.115	0.150
D	0.750	0.800	0.850
E	1.100	1.200	1.300
E1	1.500	1.600	1.700
E2	0.200REF		
L	0.010	0.040	0.070