

SCHOTTKY BARRIER DIODE

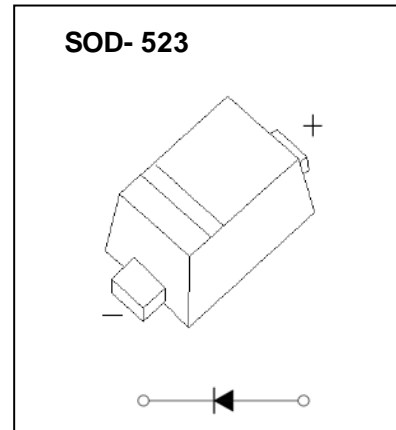
Features

- ◆ Low Forward Voltage Drop
- ◆ Fast Switching Time
- ◆ Surface Mount Package Ideally Suited For Automatic Insertion

Marking Information



The marking bar indicates the cathode



Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise specified)

Symbol	Parameter	Limit	Unit
V_{RRM}	Repetitive Peak Reverse Voltage	40	V
V_{RWM}	Working Peak Reverse Voltage		
V_R	DC Blocking Voltage		
$V_{R(RMS)}$	RMS Reverse Voltage	30	V
I_{FM}	Forward Continuous Current	250	mA
I_{FRM}	Repetitive Peak Forward Current @ $t<1.0s$	500	mA
I_{FSM}	Non- repetitive Peak Forward Surge Current @ $t=8.3ms$	2	A
P_d	Power Dissipation	150	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	667	$^\circ\text{C}/\text{W}$
T_J	Operating Junction Temperature Range	-40 ~ +125	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	- 55 ~ +150	$^\circ\text{C}$

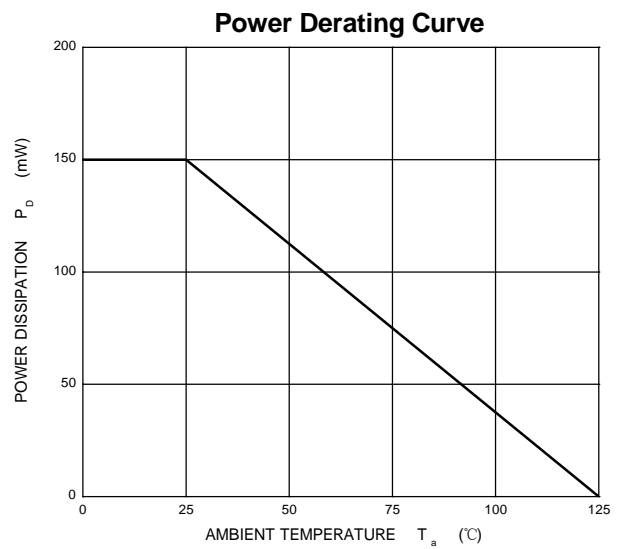
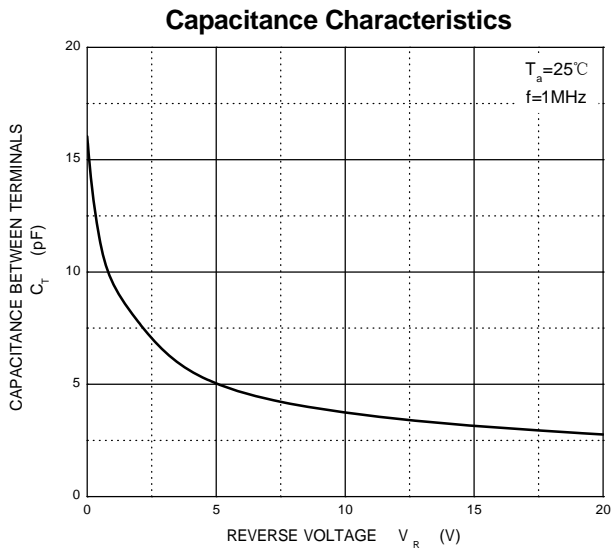
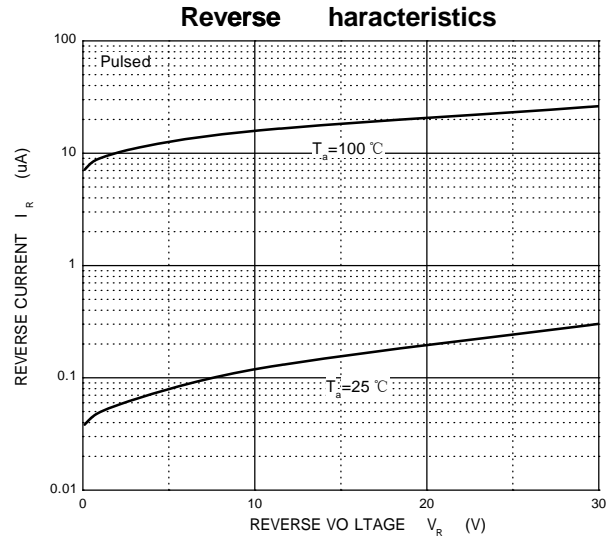
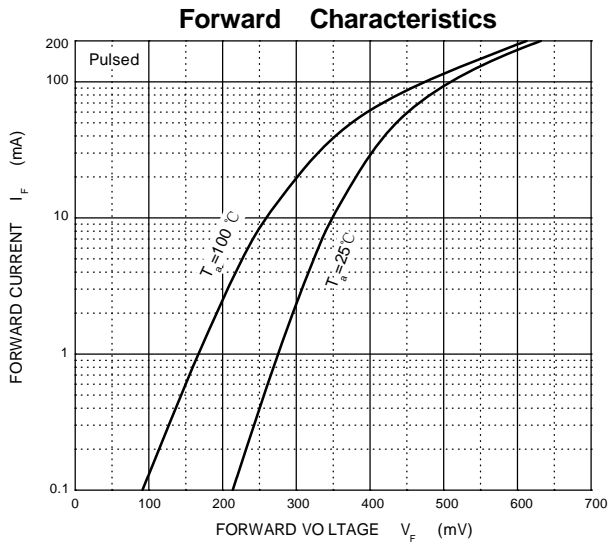
Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	$I_R=10\mu\text{A}$	40			V
Reverse current	I_R	$V_R=10\text{V}$			0.55	μA
Reverse current	I_R	$V_R=25\text{V}$		0.20	2.0	μA
Reverse current	I_R	$V_R=40\text{V}$		0.50	10	μA
Forward voltage	V_F	$I_F=10\text{mA}$		0.36	0.39	V
		$I_F=100\text{mA}$			0.55	V
		$I_F=200\text{mA}$		0.65	0.70	V
Capacitance between terminals	C_T	$V_R=5.0\text{V}, f=1.0\text{MHz}$		4		pF
Reverse recovery time	t_{rr}	$I_F=I_R=10\text{mA}$ $I_{rr}=0.1I_R, R_L=100\Omega$		3		ns

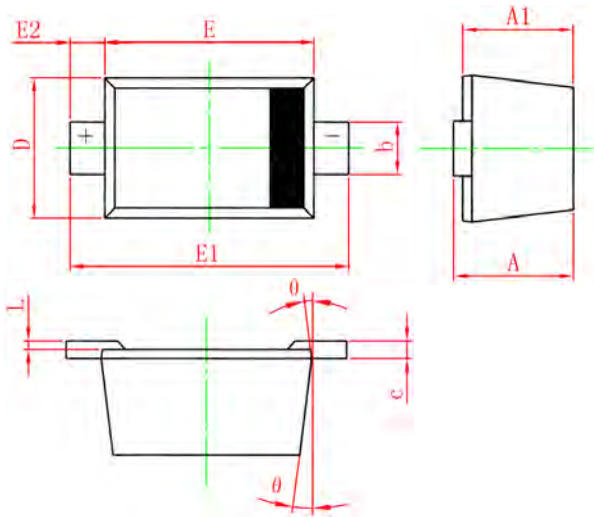


FDR0240V2

Typical Characteristics

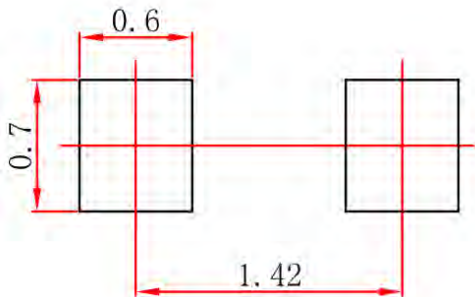


SOD-523 Package Outline Drawing



SYM	DIMENSIONS					
	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.51	- -	0.77	0.020	- -	0.031
A1	0.50	- -	0.70	0.020	- -	0.031
b	0.25	- -	0.35	0.010	- -	0.014
c	0.08	- -	0.15	0.003	- -	0.006
D	0.75	- -	0.85	0.030	- -	0.033
E	1.10	- -	1.30	0.043	- -	0.051
E1	1.50	- -	1.70	0.059		0.067
E2	0.20REF			0.008REF		
L	0.01	- -	0.07	0.001	- -	0.003
θ	7° REF			7° REF		

Suggested Land Pattern



Unit : mm