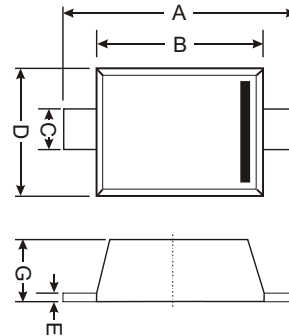


Features

- DC - DC converters
- Mobile telecomms
- Charger circuits
- LED driver circuits
- High frequency rectification

Mechanical Data

- Case: SOD-523
- Case Material: Molded Plastic. UL Flammability
- Classification Rating 94V-0
- Marking Code: .35
- Weight: 0.002 grams (approximate)



SOD-523		
Dim	Min	Max
A	1.50	1.70
B	1.10	1.30
C	0.25	0.35
D	0.70	0.90
E	0.10	0.20
G	0.50	0.70
All Dimensions in mm		

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

PARAMETER	SYMBOL	LIMIT	UNIT
Continuous Reverse Voltage	V_R	40	V
Continuous Forward Current	I_F	350	mA
Average Peak Forward Current; D.C. = 50%	I_{FAV}	510	mA
Non Repetitive Forward Current $t < 100\mu\text{S}$ $< 10\text{mS}$	I_{FSM}	4.2 910	A mA
Power Dissipation at $T_A=25^\circ\text{C}$ ^(a)	P_D	285	mW
Power Dissipation at $T_A=25^\circ\text{C}$ ^(b)	P_D	330	mW
Storage Temperature Range	T_{stg}	-55 to +150	$^\circ\text{C}$
Junction Temperature	T_j	125	$^\circ\text{C}$

THERMAL RESISTANCE

PARAMETER	SYMBOL	VALUE	UNIT
Junction to Ambient ^(a)	$R_{\theta JA}$	350	$^\circ\text{C}/\text{W}$
Junction to Ambient ^(b)	$R_{\theta JA}$	303	$^\circ\text{C}/\text{W}$

NOTES

(a) For a single device surface mounted on 25mm x 25mm x 1.6mm FR4 PCB with high coverage of 1oz copper in still air conditions.

(b) As (a) above measured at $t < 5$ secs.



ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^{\circ}\text{C}$ unless otherwise stated)

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS
Reverse Breakdown Voltage	$V_{(BR)R}$	40	60		V	$I_R=100\mu\text{A}$
Forward Voltage	V_F		300	325	mV	$I_F=30\text{mA}^*$
			335	370	mV	$I_F=50\text{mA}^*$
			405	460	mV	$I_F=100\text{mA}^*$
			730	810	mV	$I_F = 350\text{mA}^*$
Reverse Current	I_R		7	12	μA	$V_R=30\text{V}$
Diode Capacitance	C_D		3.3	6	pF	$f=1\text{MHz}; V_R=25\text{V}$
Reverse Recovery Time	t_{rr}		1.6		nS	Switched from $I_F=100\text{mA}$ to $I_R=100\text{mA}$ Measured at $I_R=10\text{mA}$

NOTES

* Measured under pulsed conditions. Pulse width=300 μs . Duty cycle \leq %

