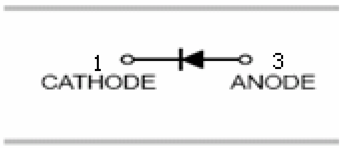
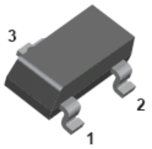
40V SILICON HIGH CURRENT LOW LEAKAGE SCHOTTKY DIODE ZLLS1000





SOT-23

FEATURES

Lead-free

- Low Equivalent On Resistance
- Extremely Low Leakage (20uA @30V)
- High current capability (I_F = 1.16A)
- Low VF, Fast switching Schottky
- ZLLS1000 complements low temperature equivalent ZHCS1000
- Package thermally rated to 150℃

APPLICATIONS

- DC - DC Converters
- Strobes
- Mobile Phones
- Charging Circuits
- Motor control

ORDERING INFORMATION

Type No.	Marking	Package Code
ZLLS1000	L10	SOT-23

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

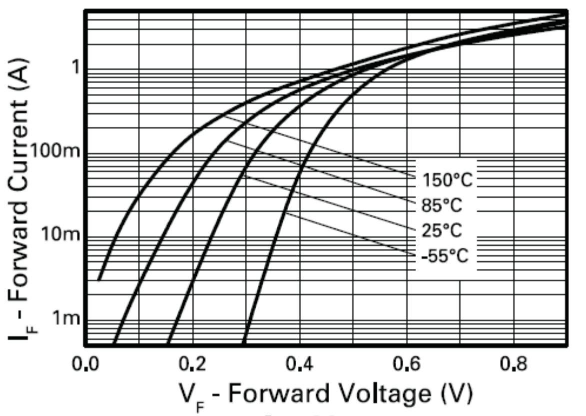
Parameter	**Symbol**	**Limits**	**Unit**
Continuous reverse voltage	V_R	40	V
Forward Current	I_F	1.16	A
Peak Repetitive Forward Current Rectangular Pulse Duty Cycle	I_{FPK}	1.88	A
Non Repetitive Forward Current t=≤100us t=≤100us	I_{FSM}	22 6.4	A A
Power Dissipation	P_d	625	mW
,Junction to ambient (a)	$R_{θJA}$	200	℃/W
Junction to ambient (b)	$R_{θJA}$	149	℃/W
Junction temperature	T_j	150	℃
Storage temperature range	T_{stg}	-55 to +150	℃

40V SILICON HIGH CURRENT LOW LEAKAGE SCHOTTKY DIODE ZLLS1000

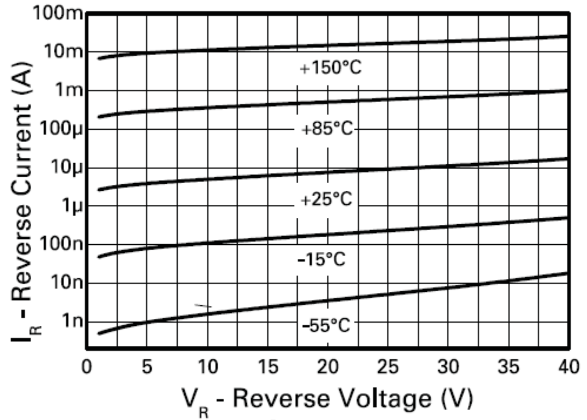
ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	Typ.	MAX	UNIT
Reverse Breakdown voltage	$V_{(BR)R}$	I_R=500μA	40			
Reverse voltage leakage current	I_R	V_R=30V			20	μA
Forward voltage	V_F	I_F=50mA I_F=100mA I_F=250mA I_F=400mA I_F=750mA I_F=1000mA I_F=1500mA			310 340 390 460 51 560 660	mV
Total capacitance	C_D	V_R=30V,f=1MHz		31		pF
Reverse recovery time	t_{rr}	I_F=500mA,V_R=5V, R_L=6Ω		2.58		ns

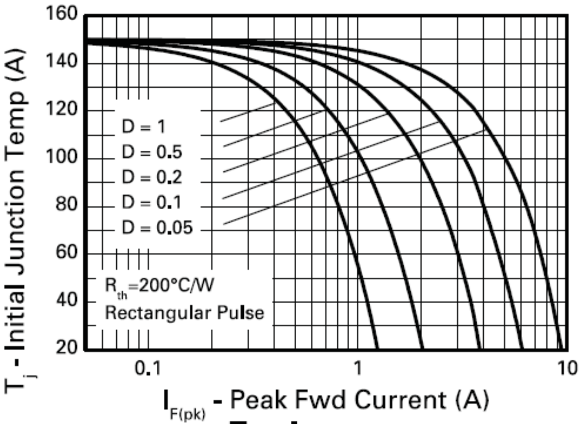
TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified



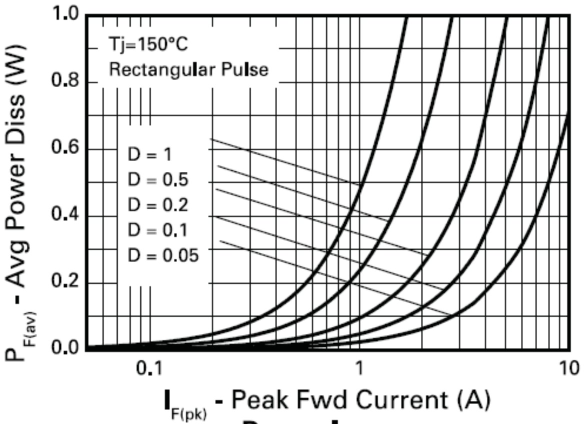
I_F v V_F



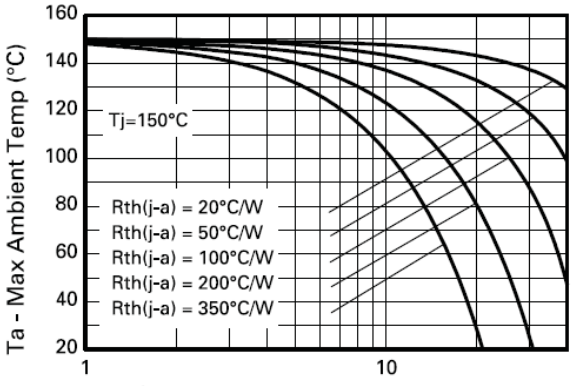
$I_{R\ v\ V_R}$



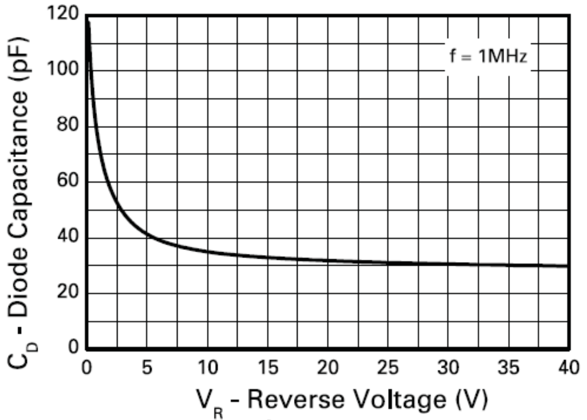
T_C v $I_{F(av)}$



$P_{F(av)}$ v $I_{F(pk)}$



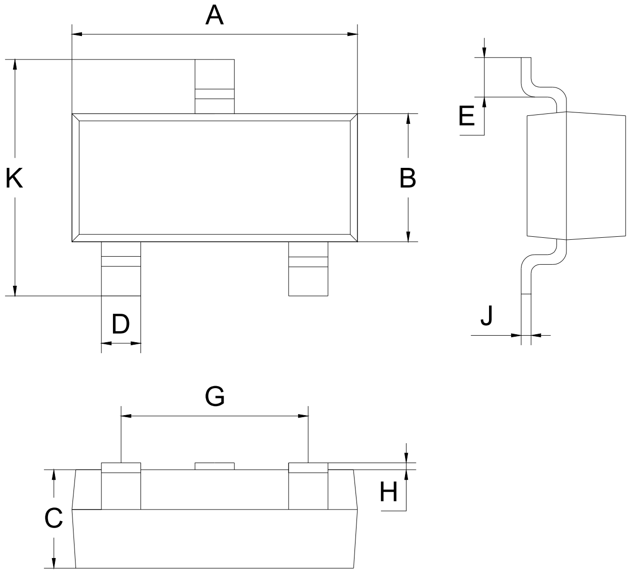
Ta v V_R



C_D v V_R

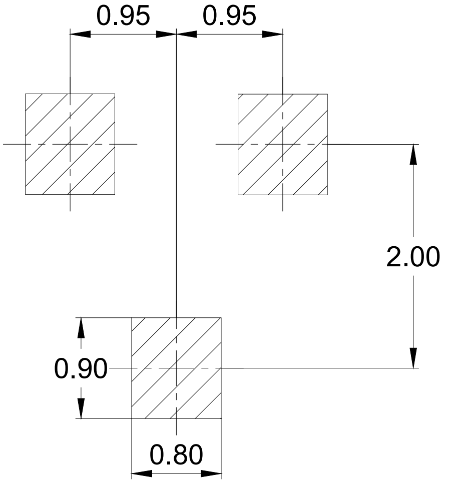
PACKAGE OUTLINE

Plastic surface mounted package SOT-23



SOT-23		
Dim	Min	Max
A	2.70	3.10
B	1.10	1.50
C	1.0 Typical	
D	0.4 Typical	
E	0.35	0.48
G	1.80	2.00
H	0.02	0.1
J	0.1 Typical	
K	2.20	2.60
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
ZLLS1000	SOT-23	3000/Tape&Reel