DSK32 THRU DSK320

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

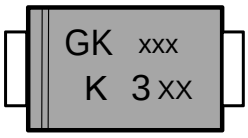
VOLTAGE RANGE
20 to 100 Volts
CURRENT
3.0 Ampere

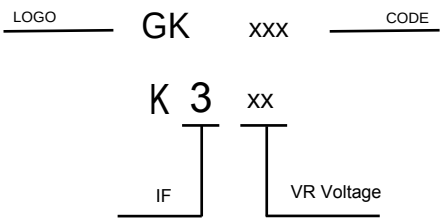
FEATURES

* Ideal for surface mount applications
* Easy pick and place
* Built-in strain relief
* Low forward voltage drop

MECHANICAL DATA

* Case: Molded plastic
* Epoxy: UL 94V-0 rate flame retardant
* Metallurgically bonded construction
* Polarity: Color band denotes cathode end
* Mounting position: Any





MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Maximum Ratings

PARAMETER	SYMBOL	UNIT	DSK32	DSK34	DSK35	DSK36	DSK38	DSK310	DSK315	DSK320
Device marking code			K32	K34	K35	K36	K38	K310	K315	K320
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	V	20	40	50	60	80	100	150	200
Maximum RMS Voltage	V_{RMS}	V	14	28	35	42	56	70	105	140
Maximum DC blocking Voltage	V_{DC}	V	20	40	50	60	80	100	150	200
Maximum Average Forward Rectified Current @ 60Hz sinewave, Resistance load,TL (Fig.1)	$I_{F(AV)}$	A	3.0							
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	I_{FSM}	A	80							
Storage temperature	T_{stg}	°C	-55 ~ +150							
Junction temperature	T_j	°C	-55 ~ +125			-55 ~ +150				
Typical Thermal Resistance	$R_{\theta J-A}$	°C /W	80							
	$R_{\theta J-L}$	°C /W	20							

Electrical Characteristics (Ta=25°C Unless otherwise noted)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	DSK32	DSK34	DSK35	DSK36	DSK38	DSK310	DSK315	DSK320
Maximum instantaneous forward voltage	I_F=3.0A	V_F	V	0.55		0.70		0.85		0.95	
Maximum DC reverse currentat rated DC blocking voltage	$V_R=V_{DC}$, T_A=25°C	I_{R1}	mA	0.2				0.05			
	$V_R=V_{DC}$, T_A=100°C	I_{R2}		20				5			
Typical junction capacitance	4.0V DC,1MHz	C_J	pF	250		160					

RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

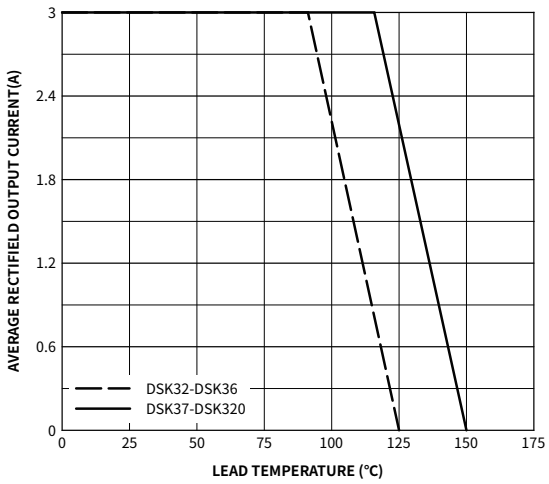


FIG.2-TYPICAL FORWARD CHARACTERISTICS

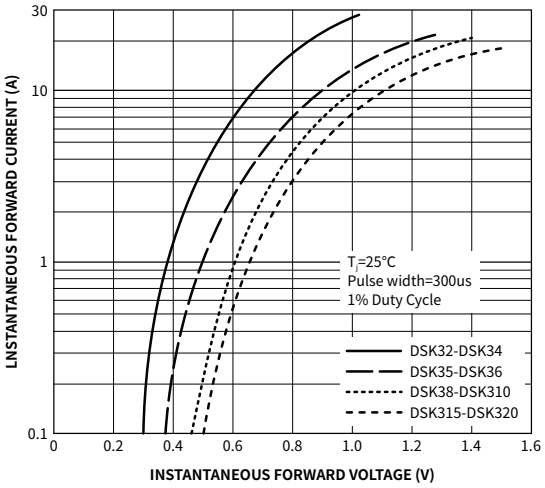


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

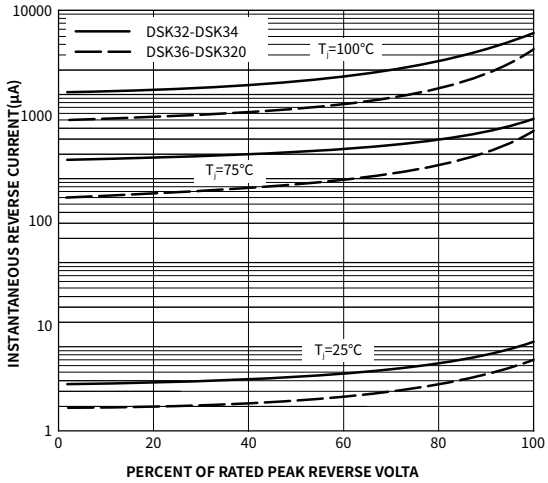
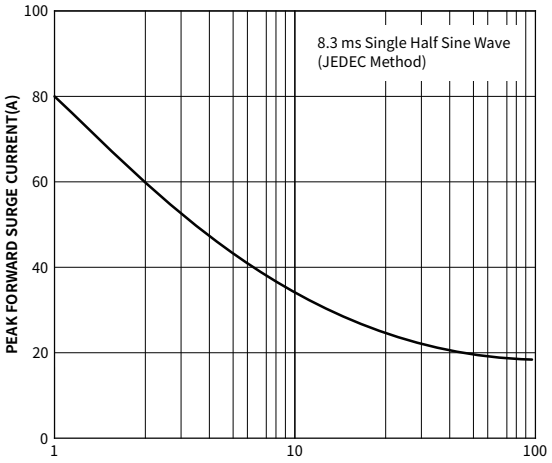


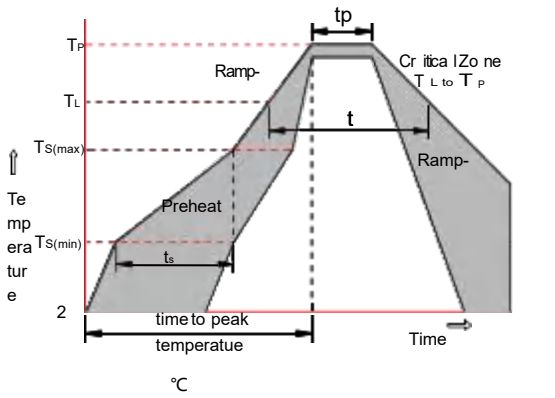
FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



Soldering parameters

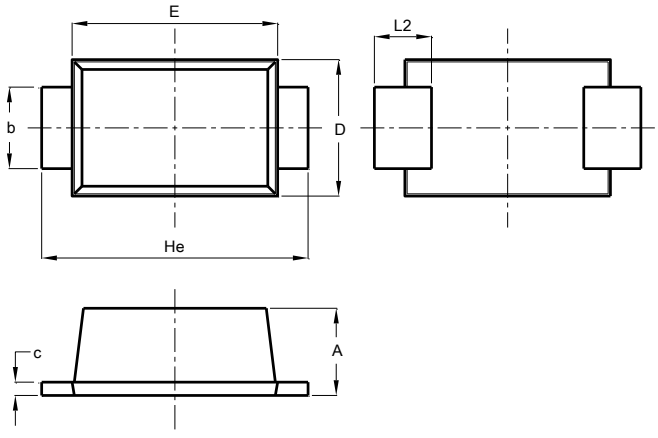
Reflow Condition		Pb-Free assembly (see as bellow)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150℃
	-Temperature Max($T_{s(max)}$)	+200℃
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3℃/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3℃/sec. Max
Reflow	-Temperature(T_L)(Liquid us)	+217℃
	-Temperature(t_L)	60-150 secs.
Peak Temp (T_p)		+260(+0/-5)℃
Time within 5℃ of actual Peak Temp (t_p)		30 secs. Max
Ramp-down Rate		6℃/sec. Max
Time 25℃ to Peak Temp (T_P)		8 min. Max
Do not exceed		+260℃

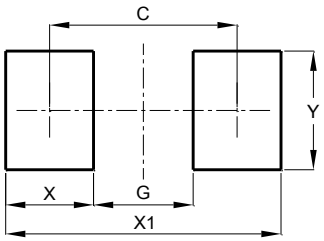
FIG5: Reflow condition



Package Dimensions & Suggested Pad Layout

SOD123FL



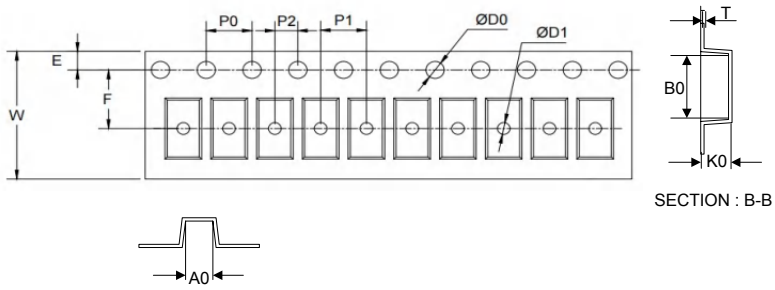


SOD123FL		
Dim	**Min**	**Max**
A	1.00	1.20
b	0.80	1.10
c	0.12	0.20
D	1.75	1.95
E	2.60	2.90
He	3.55	3.80
L2	0.50	0.85
All Dimensions in mm		

Dimensions	Value (in mm)
C	3.25
G	2.00
X	1.25
X1	4.50
Y	1.50

Tape & rell specification

Tape

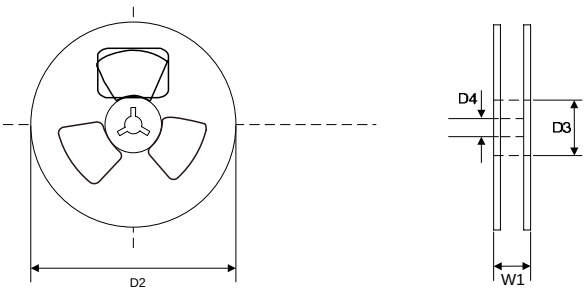


SECTION : B-B

SECTION : A-A

Symbol	Dimension (mm)
P0	4.00±0.20
P1	4.00±0.20
P2	2.00±0.20
D0	1.55±0.15
D1	1.00±0.20
E	1.75±0.20
F	3.50±0.25
W	8.00±0.20
A0	1.85±0.20
B0	3.95±0.20
K0	1.30±0.20
T	0.21±0.10

7” Reel



D2	178.0±5.0
D3	55.0Min.
D4	10.0±2.5
W1	11.5±2.5
Quantity: 3000PCS	