SSL56

5.0 AMP SCHOTTKY BARRIER RECTIFIERS

VOLTAGE RANGE
40 Volts
CURRENT
3.0 Ampere

FEATURES

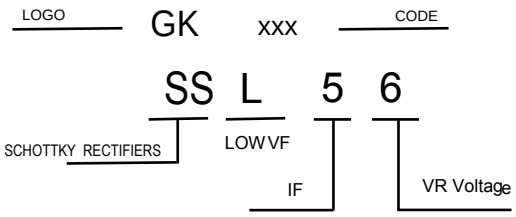
* Ideal for surface mount applications
* Easy pick and place
* Built-in strain relief
* Low forward voltage drop





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℃ ambient temperature uniess otherwies specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	SSL56	UNITS
Maximum Recurrent Peak Reverse Voltage	60	V
Maximum RMS Voltage	42	V
Maximum DC Blocking Voltage	60	V
Maximum Average Forward Rectified Current See Fig. 1	5.0	A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	120	A
Maximum Instantaneous Forward Voltage at 5.0A	0.55	V
Maximum DC Reverse Current Ta=25℃	0.1	mA
at Rated DC Blocking Voltage Ta=125℃	30	mA
Typical Junction Capacitance (Note1)	370	pF
Typical Thermal Resistance R JA (Note 2)	70	℃/W
Operating Temperature Range T_J	-55 — +125	℃
Storage Temperature Range T_{STG}	-55 — +150	℃

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Unit mounted on PC board with 5.0mm× 5.0 mm (0.013 mm thick) copper pads as heat sink

RATING AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

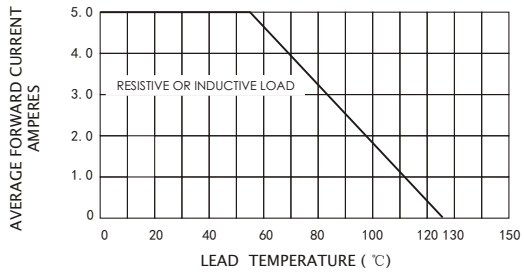


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

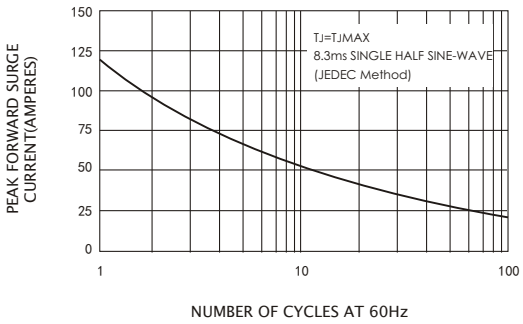


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

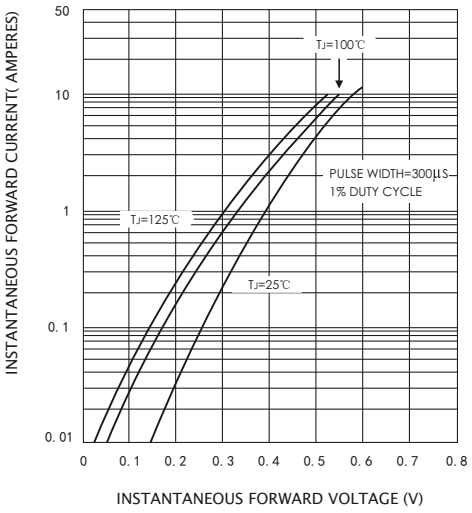


FIG.4-TYPICAL REVERSE CHARACTERISTICS

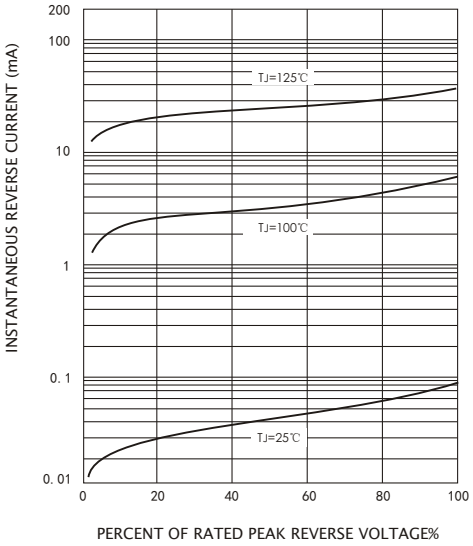
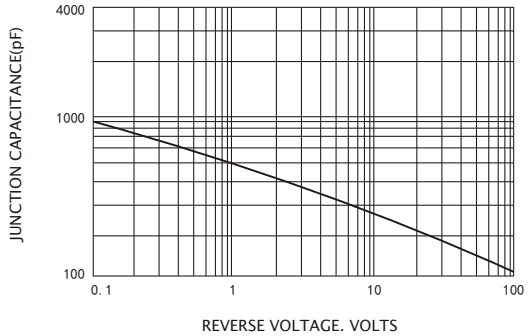


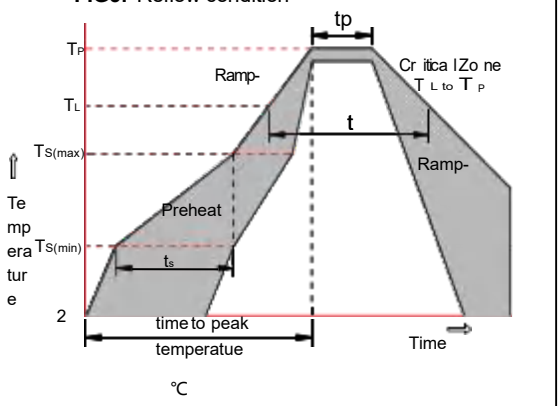
FIG.5-TYPICAL JUNCTION CAPACITANCE



Soldering parameters

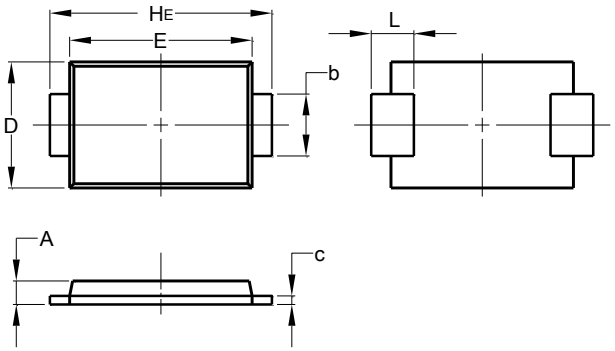
Reflow Condition		Pb-Free assembly (see as bellow)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150℃
	-Temperature Max($T_{s(max)}$)	+200℃
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3℃/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3℃/sec. Max
Reflow	-Temperature(T_L)(Liquid 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℃

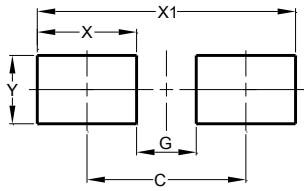
FIG5: Reflow condition



Package Dimensions & Suggested Pad Layout

SMAF



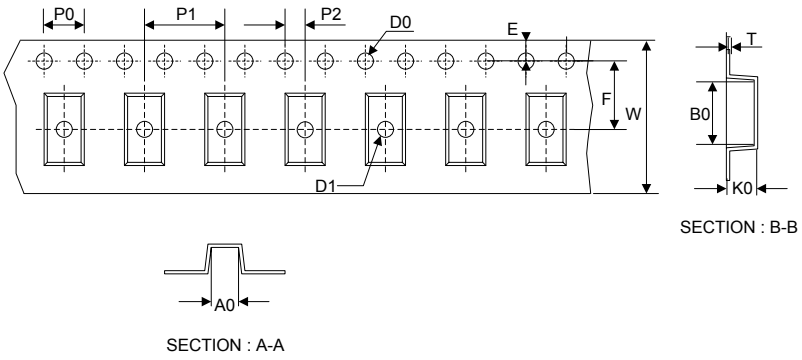


SMAF		
Dim	**Min**	**Max**
A	0.90	1.20
b	1.30	1.60
c	0.10	0.20
D	2.40	2.70
E	3.30	3.70
H_E	4.40	4.90
L	0.60	1.20
All Dimensions in mm		

Dimensions	Value (in mm)
C	3.80
G	2.20
X	1.60
X1	5.40
Y	1.70

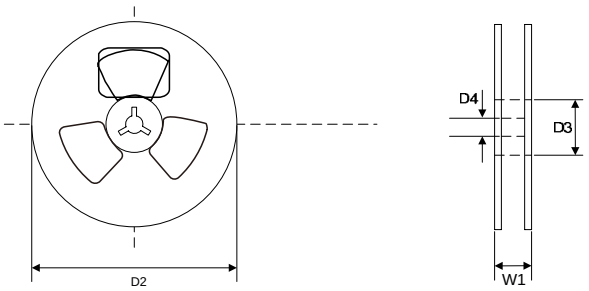
Tape & rell specification

Tape



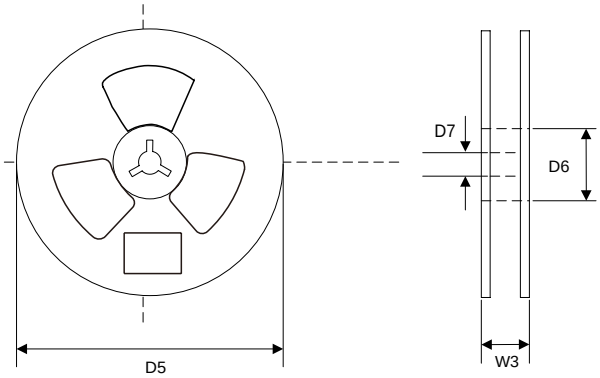
Symbol	Dimension (mm)
P0	4.00±0.20
P1	4.00±0.20
P2	2.00±0.20
D0	1.55±0.25
D1	1.55±0.25
E	1.75±0.20
F	5.50±0.20
W	12.00±0.20
A0	2.85±0.20
B0	5.00±0.20
K0	1.45±0.20
T	0.26±0.10

7” Reel



D2	176.0±5.0
D3	55.0Min.
D4	14.0±2.5
W1	14.0±2.5
Quantity: 3000PCS	

13” Reel



D5	330.0±5.0
D6	73.0Min.
D7	14.0±2.5
W2	14.0±2.5
Quantity: 10000PCS	