

LUMB160

Surface Mount Glass Passivated Super Fast Rectifiers
Reverse Voltage 600V Forward Current 1.0A

1. FEATURES

- We declare that the material of product compliance with RoHS requirements and Halogen Free.
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0.
- High temperature metallurgically bonded construction.
- Cavity-free glass passivated junction.
- For use in high frequency rectifier circuits.
- Fast Switching for high efficiency
- Typical IR less than 1.0 μ A.
- High temperature soldering guaranteed:260°C/10 seconds.
- S- prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.
- Weight: 0.088g

2. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
LUMB160	UM16	3500/Tape&Reel

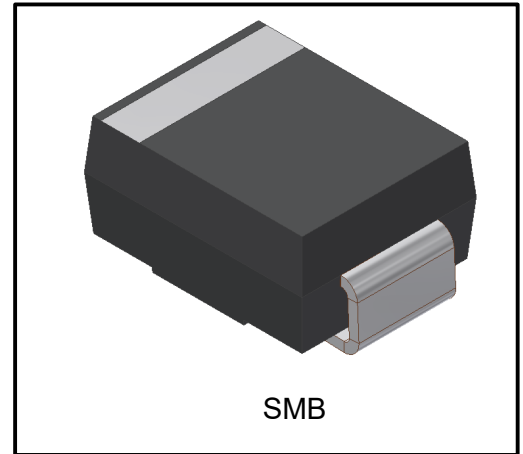
3. MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
Maximum repetitive peak reverse voltage	VRRM	600	V
Maximum RMS voltage	VRMS	420	V
Maximum DC blocking voltage	VDC	600	V
Maximum average forward rectified current at TC = 75°C	IF(AV)	1	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	30	A
Typical thermal resistance (Note 1)	R θ JA	160	°C/W
	R θ JC	50	
Operating junction and storage temperature range	TJ, TSTG	-50 ~+150	°C

4. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Maximum instantaneous forward voltage at 1.0A	VF	-	-	1.50	V
Maximum DC reverse current TA = 25°C at rated DC blocking voltage TJ = 125°C	IR	-	-	5 100	μ A
Typical reverse recovery time (Note 2)	trr	-	-	50	ns
Typical junction capacitance at 4.0V, 1MHz	CJ	-	20	-	pF

1. 8.0mm² (.013mm thick) land areas
2. IF = 0.5A, IR = 1.0A, IRR = 0.25A



5. ELECTRICAL CHARACTERISTICS CURVES

Fig. 1 - Forward Current Derating Curve

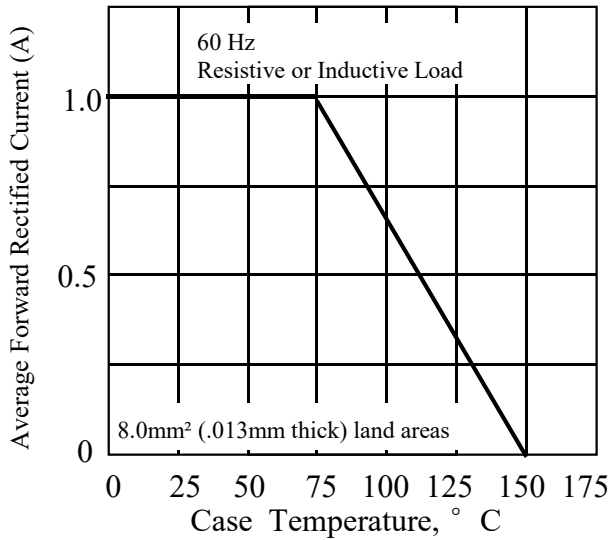


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

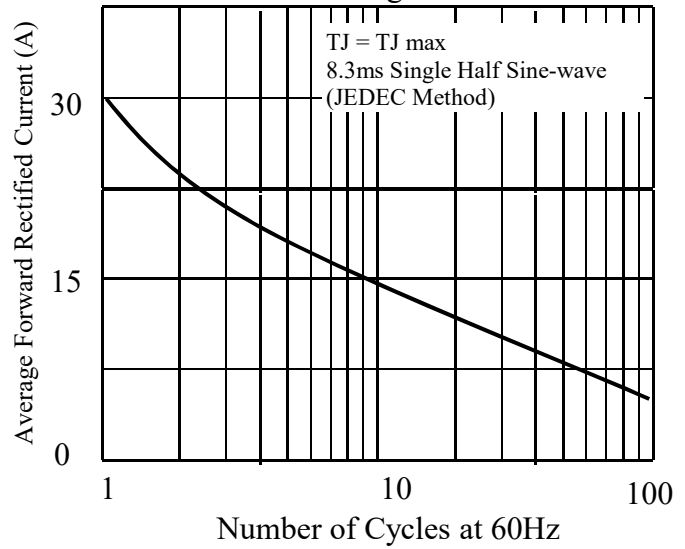


Fig 3. - Typical Instantaneous Forward Characteristics

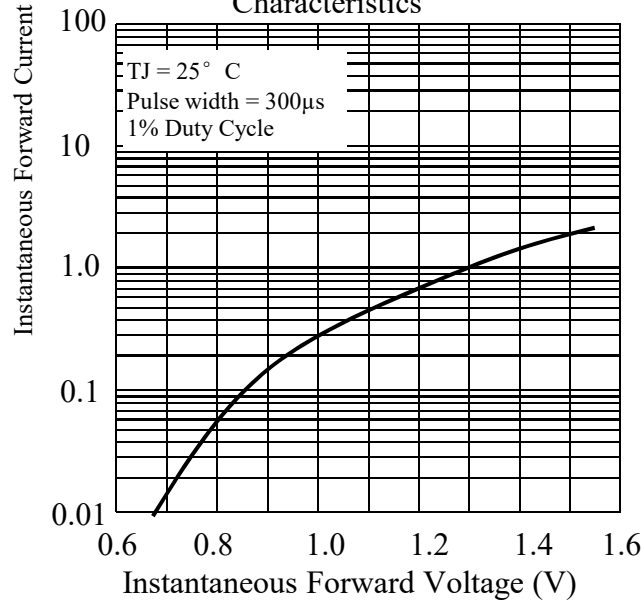


Fig 4. - Typical Reverse Characteristics

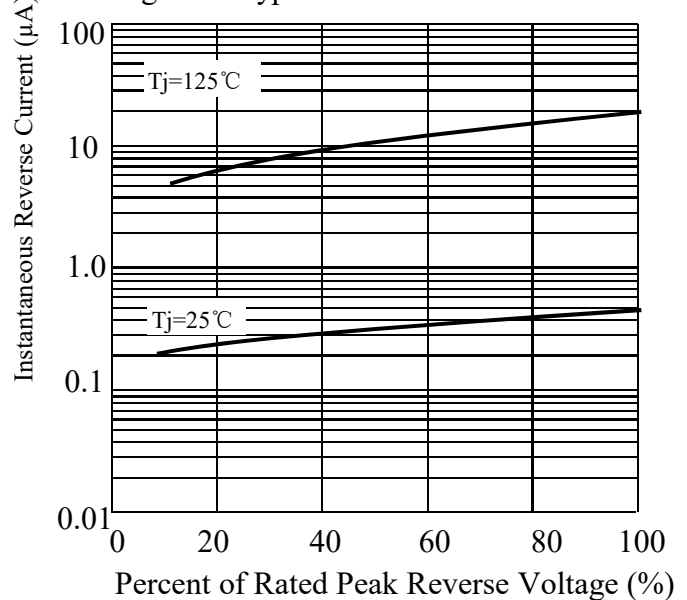
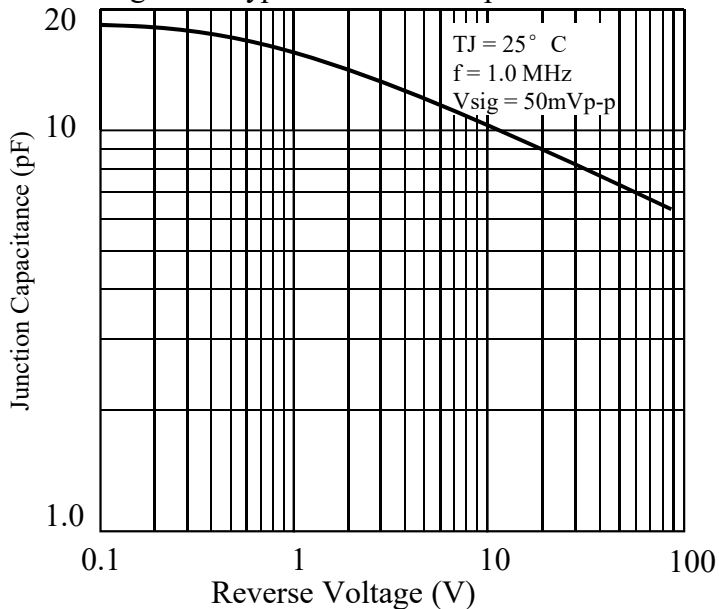
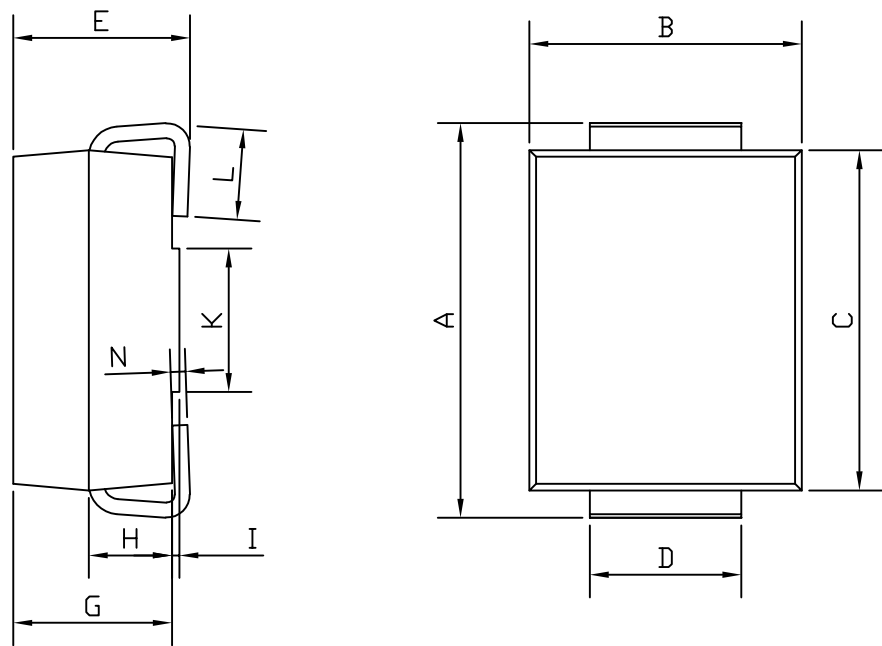


Fig 5. - Typical Junction Capacitance

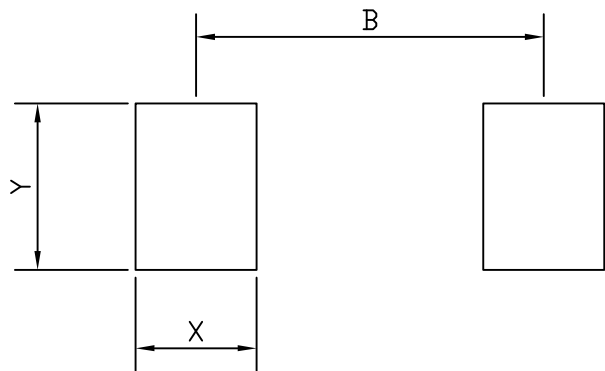


6. OUTLINE AND DIMENSIONS



SMB			
DIM	MIN	TYP	MAX
A	5.20	5.25	5.45
B	3.20	3.60	4.00
C	4.30	4.50	4.60
D	1.80	2.00	2.20
E	2.20	2.35	2.50
G	1.90	2.10	2.30
H	0.95	1.10	1.25
I	0.05	0.10	0.15
K	1.70	1.90	2.10
L	1.00	1.30	1.50
N	0.10	0.20	0.30
All Dimensions in mm			

7. SOLDERING FOOTPRINT



SMB	
DIM	(mm)
X	1.60
Y	2.20
B	4.60

DISCLAIMER

- Curve guarantee in the specification. The curve of test items with electric parameter is used as quality guarantee. The curve of test items without electric parameter is used as reference only.
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