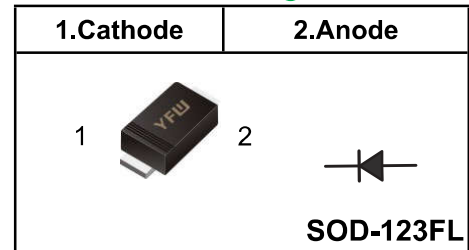


Ultrafast Efficient Rectifier
FEATURES

- ◆Halogen-free type
- ◆Compliance to RoHS product
- ◆GPRC (Glass passivated rectifier chip) inside
- ◆Lead less chip form, no lead damage
- ◆Low power loss, High efficiency
- ◆High current capability
- ◆Plastic package has Underwriters Laboratory Flammability Classification 94V-0

Pinning

Marking Code

BYD167	167
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APPLICATION

- ◆High frequency rectification
- ◆AC/DC Power Supply

Absolute Maximum Ratings (Ta = 25°C)

Parameter	Symbol	Conditions	BYD167	Unit
Repetitive peak reverse voltage	VRRM		600	V
Average forward current	IF(AV)	TL = 110 °C	1.0	A
Peak forward surge current	IFSM	8.3ms single half sine-wave	25	A
Reverse recovery time	Trr	IF = 0.5A, IR = 1.0A, Irr = 0.25A	35	nS
Operating storage temperature Range	Tj,TSTG		-65 to +175	°C

Electrical characteristics (Ta= 25°C)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage	VF	IF = 0.1A IF = 0.5A IF = 1.0A	- - -	0.85 1.15 1.40	- - 1.70	V
Repetitive peak reverse current	IRRM	VR = Max. VRRM , Ta = 25 °C	-	0.20	5	uA
Junction capacitance	Cj	VR = 4V, f = 1.0 MHz	-	10	-	pF
Thermal resistance	Rth(JA)	Junction to ambient (NOTE 1)	-	80	-	°C/W
	Rth(JL)	Junction to lead (NOTE 1)	-	40	-	

NOTES : (1) Thermal resistance from junction to ambient and from junction to lead P.C.B. mounted on 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas.
 (2) Preliminary draft.

FIG.1 - FORWARD CURRENT DERATING CURVE

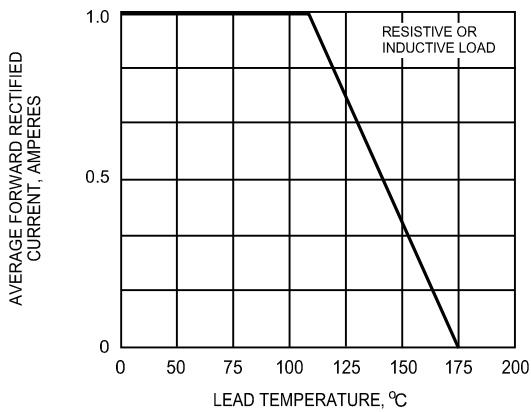


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

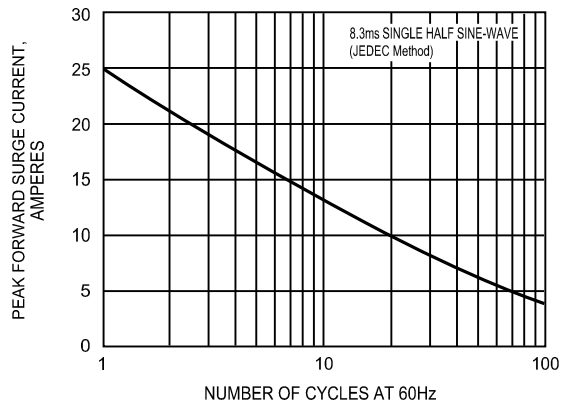


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

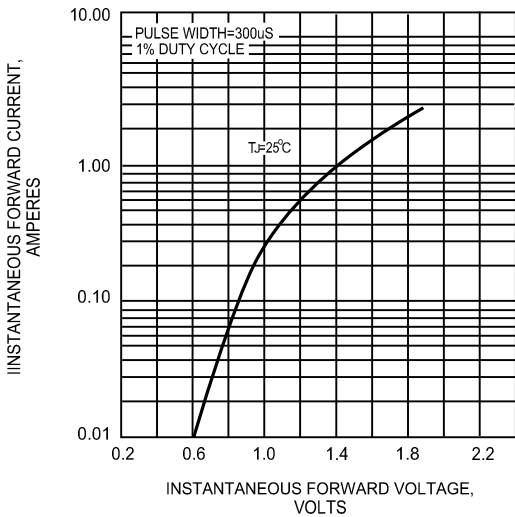


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

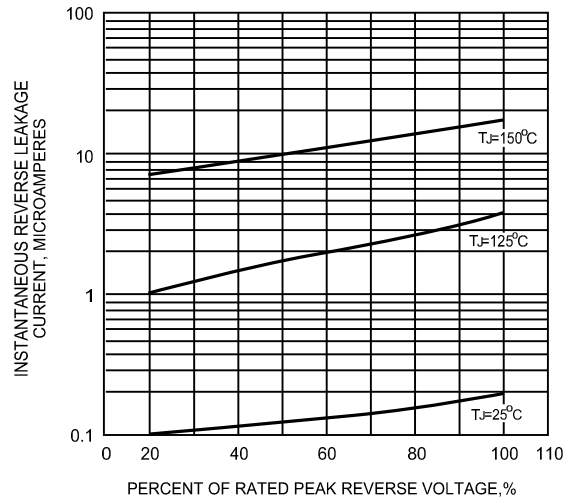
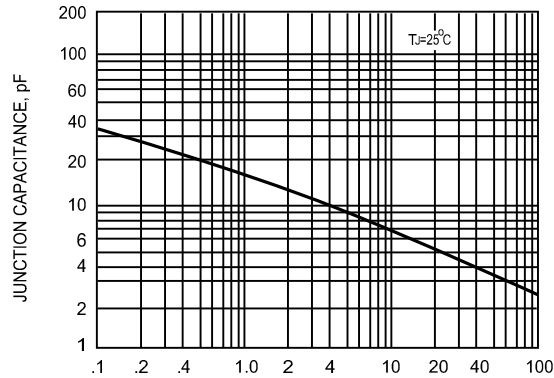


FIG.5 - TYPICAL JUNCTION CAPACITANCE



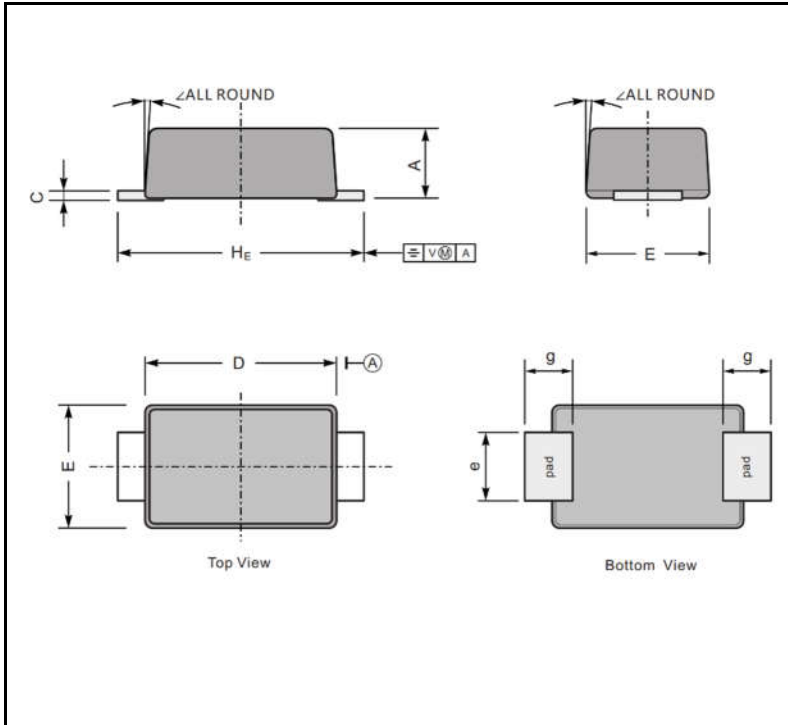
Ordering information

Package	Packing Description	Packing Quantity
SOD-123FL	Tape/Reel,7"reel	3000PCS/Reel 120000PCS/Carton

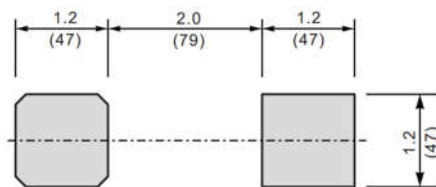
Package Dimensions

SOD-123FL

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.3	35	43
C	0.12	0.20	4.7	7.9
D	2.6	2.9	102	114
E	1.7	1.9	67	75
e	0.8	1.1	31	43
g	0.7	0.9	28	35
HE	3.5	3.8	138	150
∠	7°			



The recommended mounting pad size



Unit: $\frac{\text{mm}}{\text{mil}}$

Disclaimer

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