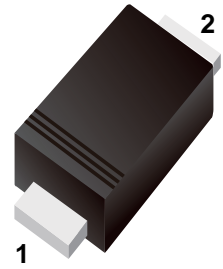


■ Ultrafast Efficient Rectifier

■ 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



■ Simplified outline(SOD-123FL)

■ APPLICATION

- High frequency rectification
- AC/DC Power Supply

■ MARKING

Marking	167
---------	-----

**Absolute Maximum Ratings (Ta = 25 °C)**

ITEM	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)**

ITEM	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage	VF	IF = 0.1A	-	0.85	-	V
		IF = 0.5A	-	1.15	-	
		IF = 1.0A	-	1.40	1.70	
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

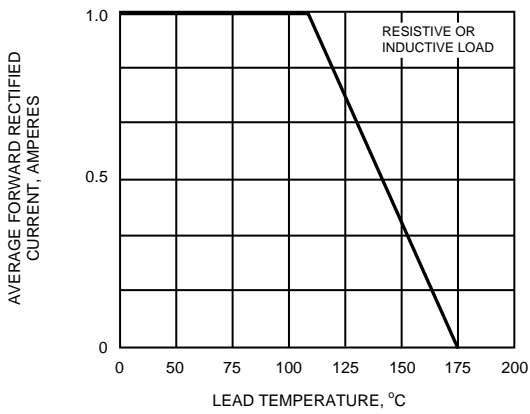


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

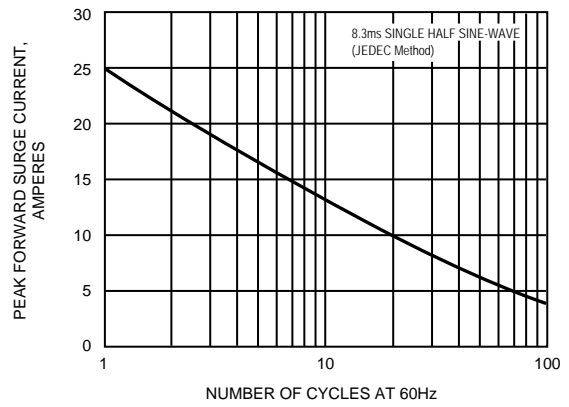


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

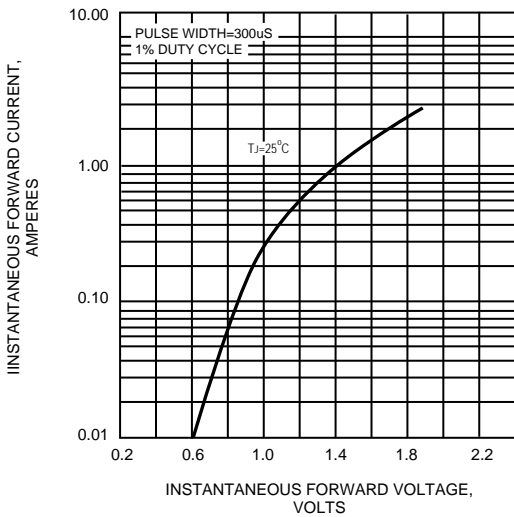


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

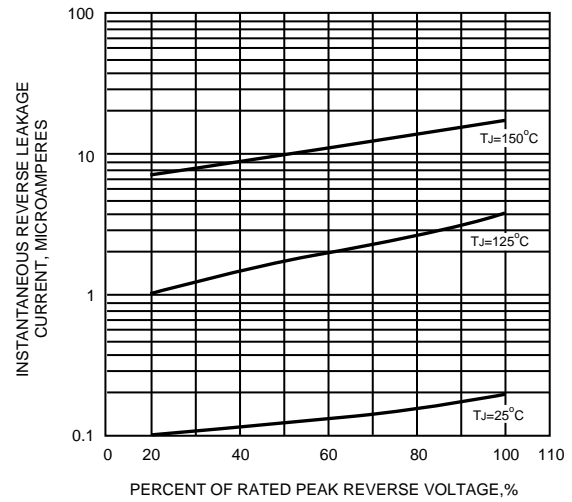
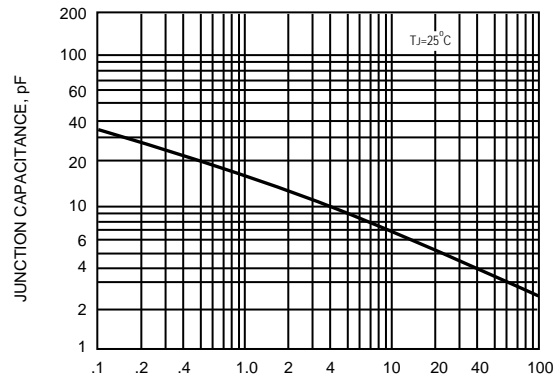
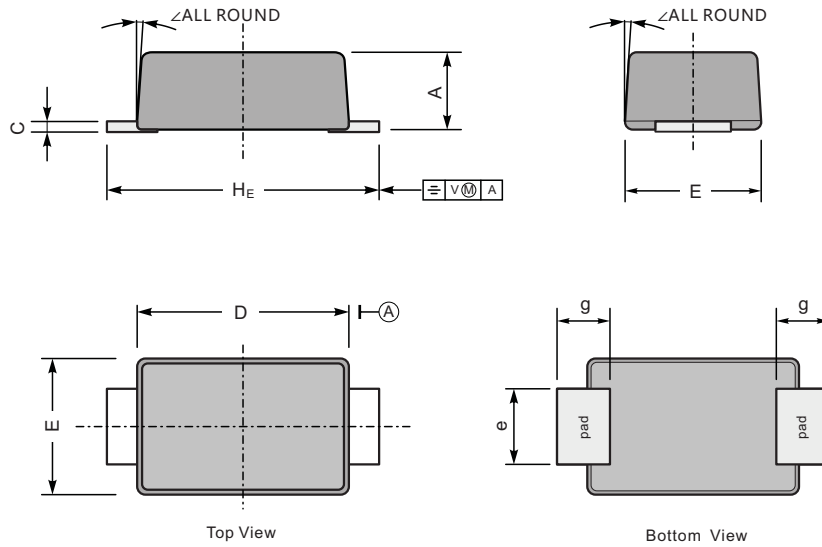


FIG.5 - TYPICAL JUNCTION CAPACITANCE



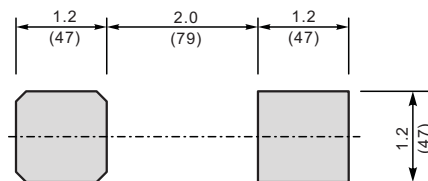
**Package Outline SOD-123FL**

Plastic surface mounted package; 2 leads



UNIT		A	C	D	E	e	g	H <sub>E</sub>	$\angle$
mm	max	1.3	0.20	2.9	1.9	1.1	0.9	3.8	7°
	min	0.9	0.12	2.6	1.7	0.8	0.7	3.5	
mil	max	43	7.9	114	75	43	35	150	
	min	35	4.7	102	67	31	28	138	

**The recommended mounting pad size**



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

**Summary of Packing Options**

Package	Packing Description	Packing Quantity	Industry Standard
SOD-123FL	Tape/Reel, 13" reel	10000	EIA-481-1
	Tape/Reel, 7" reel	3000	EIA-481-1

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