



HD216

Rectification Diode

Features

- I_o 1A
- VRRM 650V
- High surge current capability
- Smoothly soft reverse recovery time(t_{rr})
- Low profile surface mounted package in order to minimize board space
- Pb-free lead plating and halogen-free package

Marking

- 216

SOD-123 Pastic-Encapsulate



Limiting Values (Absolute Maximum Rating)

Symbol	Parameter	Value	Unit
V_{RM}	Non-repetitive peak reverse voltage	650	V
V_R	Reverse Voltage		
$V_{R(RMS)}$	RMS reverse voltage	455	V
I_o	Average rectified output current	1	A
I_{FSM}	Non-repetitive peak forward surge current @ $t=8.3ms$	10	A
P_D	Power dissipation	350	mW
$R_{\theta JA}$	Thermal resistance from junction to ambient	357	°C/W
T_J	Junction temperature	150	°C
T_{stg}	Storage temperature	-55~+150	°C

Electrical Characteristics ($T_a=25^{\circ}C$ Unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	V_R	$I_R=100\mu A$	650			V
Reverse current	I_R	$V_R=585V$			0.1	μA
Forward voltage	V_F	$I_F=100mA$			0.95	V
		$I_F=500mA$			1.2	V
Reverse recovery time	t_{rr}	$I_F=500mA, I_R=1A, I_{rr}=0.25A$			3	us
Total capacitance	C_{tot}	$V_R=1V, f=1MHz$		8		pF



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FIG.1: FORWARD CURRENT DERATING CURVE

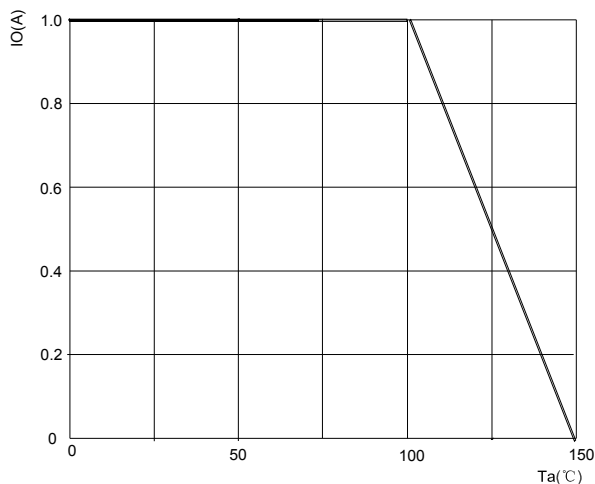


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

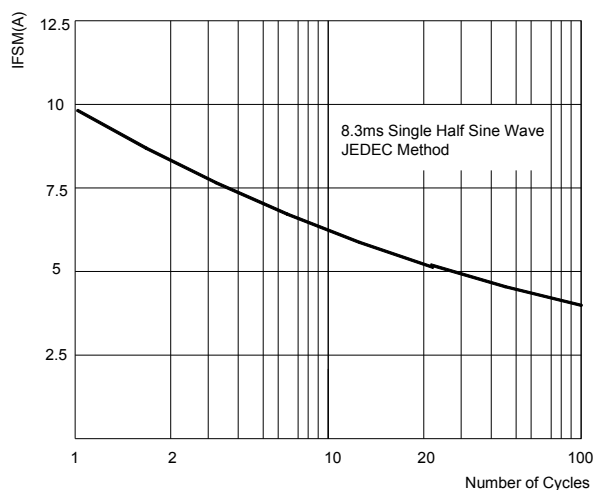


FIG3:TYPICAL FORWARD CHARACTERISTICS

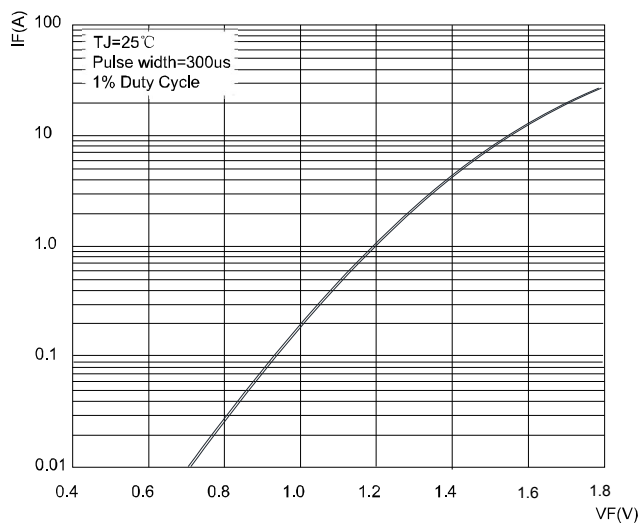
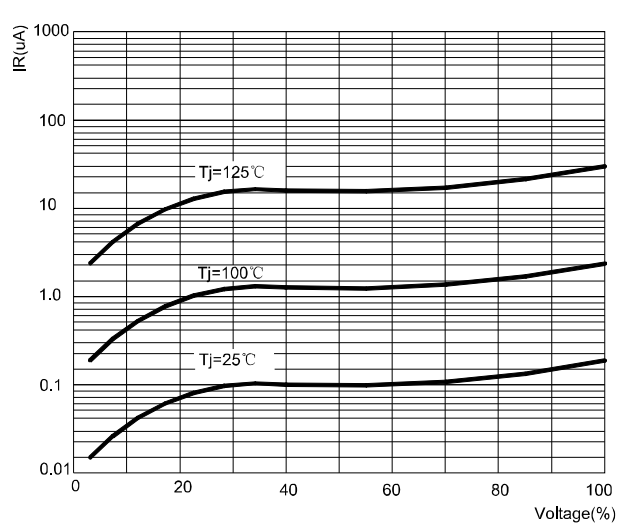


FIG.4:TYPICAL REVERSE CHARACTERISTICS

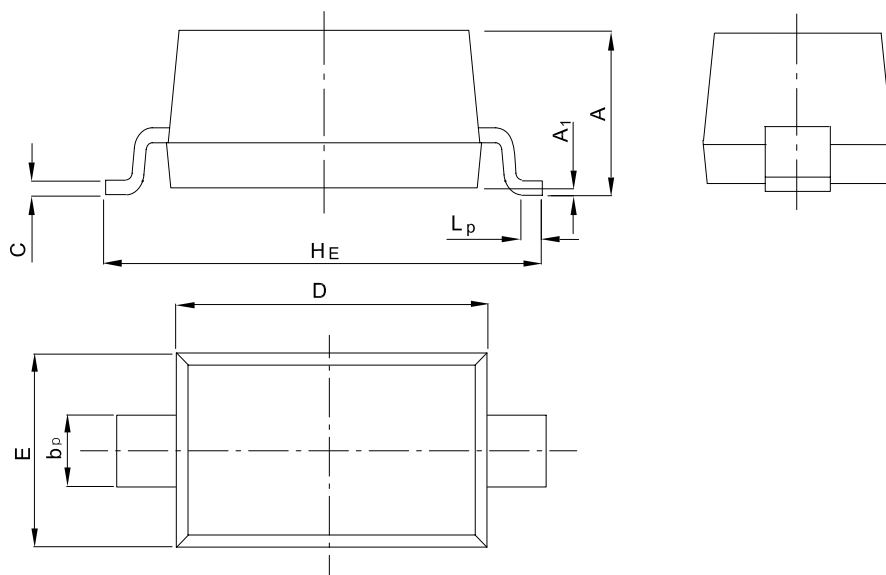




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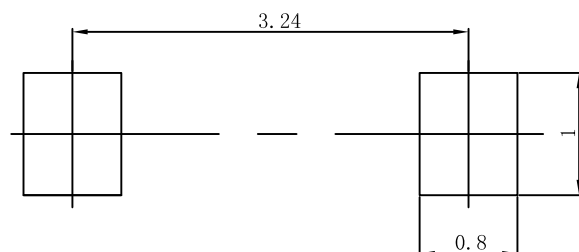
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SOD-123 Package Outline Dimensions



UNIT	A	bp	C	D	E	HE	A1	Lp
mm	1.20 0.90	0.60 0.50	0.135 0.100	2.75 2.55	1.65 1.55	3.85 3.55	0.10 0.01	0.50 0.20

SOD-123 Suggested Pad Layout



- Note:**
1. Controlling dimension: in millimeters.
 2. General tolerance: ± 0.05 mm.
 3. The pad layout is for reference purposes only.