



ESD



TVS



TSS



MOV



GDT



PLED

DSS32-MS THRU DSS320-MS

Product specification

Features

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C


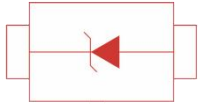
Typical Applications

For use in low voltage high frequency inverters, freewheeling, DC/DC converters, and polarity protection applications.


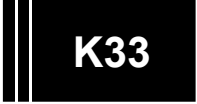

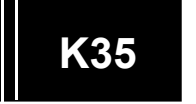
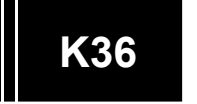
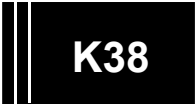



MECHANICAL DATA

- **Package:** SOD-123FL
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

Reference News

SOD-123FL	Schematic Diagram
	

Marking

DSS32-MS	DSS33-MS	DSS34-MS	DSS35-MS	DSS36-MS
				
DSS38-MS	DSS310-MS	DSS315-MS	DSS320-MS	
				

Maximum Ratings (Ta=25 °C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	DSS32 -MS	DSS33 -MS	DSS34 -MS	DSS35 -MS	DSS36 -MS	DSS38 -MS	DSS310 -MS	DSS315 -MS	DSS320 -MS
Repetitive peak reverse voltage	VRRM	V	20	30	40	50	60	80	100	150	200
Average sine wave output current @60Hz and resistive load, Ta (FIG.1)	IO	A	3.0								
Surge(non-repetitive)forward current @60Hz half-sine wave,1 cycle, Tj=25℃	IFSM	A	65								
Storage temperature -55 ~+150	Tstg	℃	-55 ~+150								
Junction temperature	Tj	℃	-55 ~+150						-55 ~+175		
Typical Junction Capacitance measured at 1MHz and Applied on 4.0VD.C	Cj	pF	165								

Electrical Characteristics (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	DSS32-MS	DSS33-MS	DSS34-MS	DSS35-MS	DSS36-MS	DSS38-MS	DSS310-MS	DSS315-MS	DSS320-MS
Maximum instantaneous forward voltage drop per diode	VF	V	IFM=3.0A	0.55			0.70		0.85		0.95	
Maximum DC reverse current at rated DC blocking voltage per diode @ VRM=VRRM	IRRM	mA	Ta=25℃	0.5					0.1			
			Ta=100℃	10					5			

Thermal Characteristics (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	DSS32-MS	DSS33-MS	DSS34-MS	DSS35-MS	DSS36-MS	DSS38-MS	DSS310-MS	DSS315-MS	DSS320-MS
Thermal Resistance	RθJ-A	℃/W	70 ¹⁾								
	RθJ-L		25 ¹⁾								

Note:

(1) Thermal resistance between junction and ambient and between junction and lead mounted on P.C.B with 3mm*3mm copper pad areas.

Characteristics (Typical)

FIG1: I_o-T_L Curve

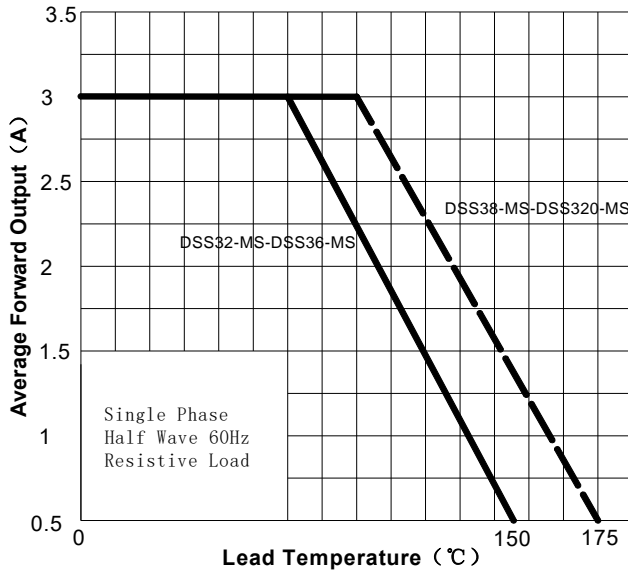


FIG2: Surge Forward Current Capability

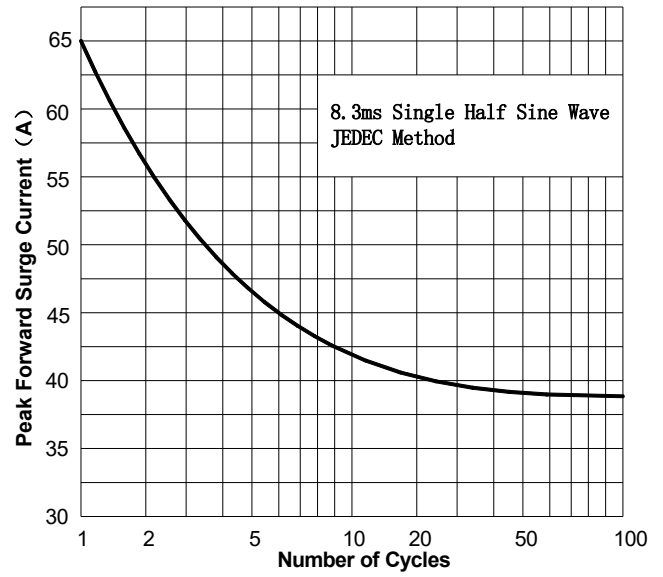


FIG3: Forward Voltage

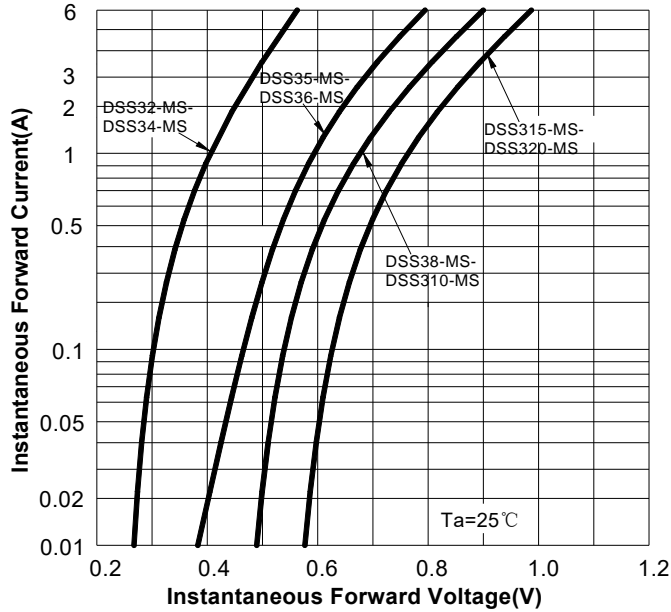
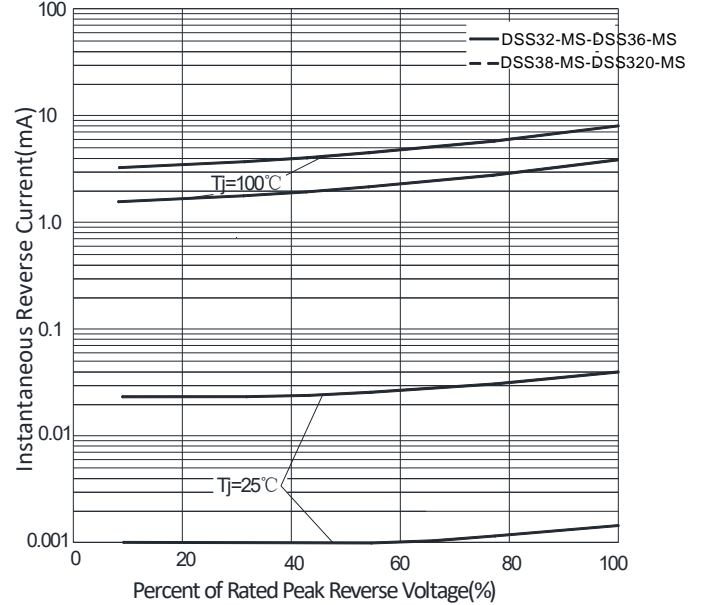
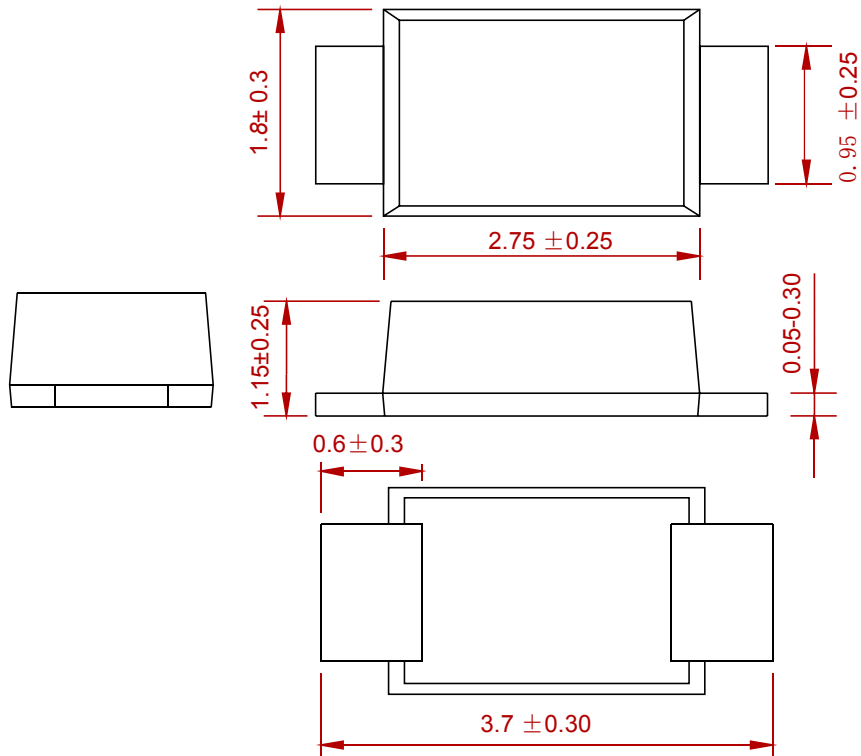
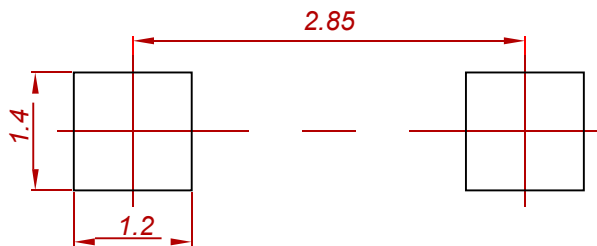


FIG4: Typical Reverse Characteristics



PACKAGE MECHANICAL DATA

Dimensions in millimeters

Suggested Pad Layout**Note:**

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
DSS32-MS THRU DSS320-MS	SOD-123FL	3000

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