

Features

- High surge current capability
- Polarity: Color band denotes cathode

Applications

- Rectifier

Marking

- S1X (X = 2 To 20)

SOD-1 23FL



Limiting Values(Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	DSS1								
				2	3	4	5	6	8	10	15	20
Repetitive Peak Reverse Voltage	V _{RRM}	V		20	30	40	50	60	80	100	150	200
Maximum RMS Voltage	V _{RMS}	V		14	21	28	35	42	56	70	105	140
Average Forward Current	I _{F(AV)}	A	60Hz Half-sine wave Resistance load	1.0								
Surge(Non-repetitive)Forward Current	I _{FSM}	A	60Hz Half-sine wave 1 cycle, Ta=25℃	30								
Junction Temperature	T _J	℃		-55~+125			-55~+150					
Storage Temperature	T _{STG}	℃		-55 ~ +150								

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

Item	Symbol	Unit	Test Condition		DSS1								
					2	3	4	5	6	8	10	15	20
Peak Forward Voltage	V _F	V	I _F =1.0A		0.55			0.70		0.85		0.95	
Peak Reverse Current	I _{RRM1}	mA	V _{RM} =V _{RRM}	Ta=25°C	0.5				0.1				
	Ta=100°C			10				5.0					
Thermal Resistance(Typical)	R _{θJ-A}	°C/ W	Between junction and ambient		68								
	R _{θJ-L}		Between junction and lead		10								
Juction Capacitance (Typical)	Cj	pF	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C		40			30		26		20	

Notes:

Thermal resistance from junction to ambient and from junction to lead mounted on FR4 PCB double sided copper mini pad

Typical Characteristics

FIG.1 : FORWARD CURRENT DERATING CURVE

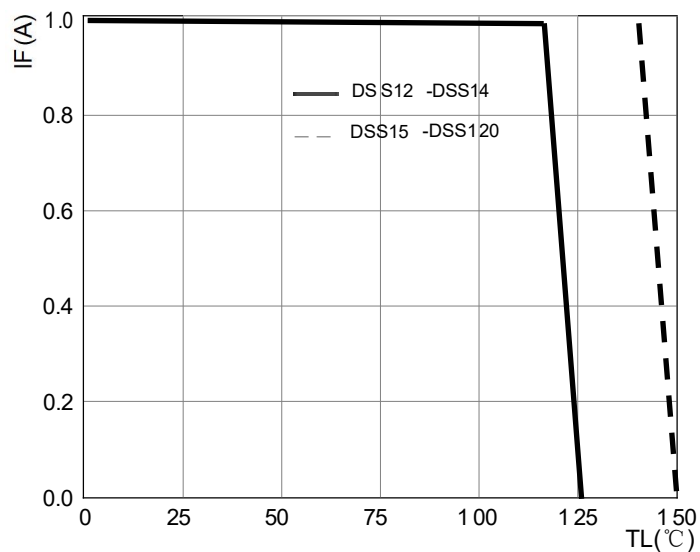
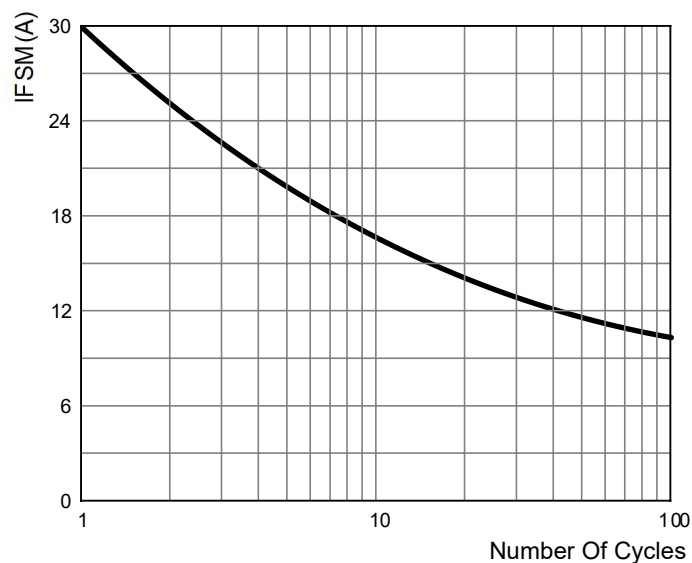
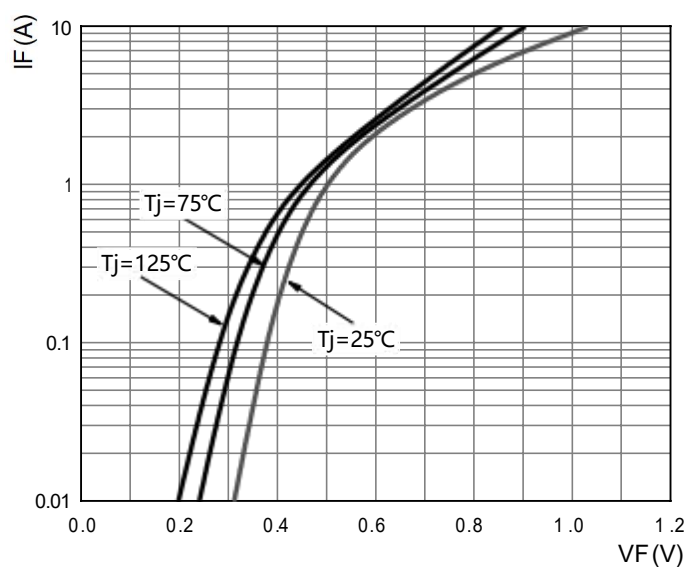


FIG 2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



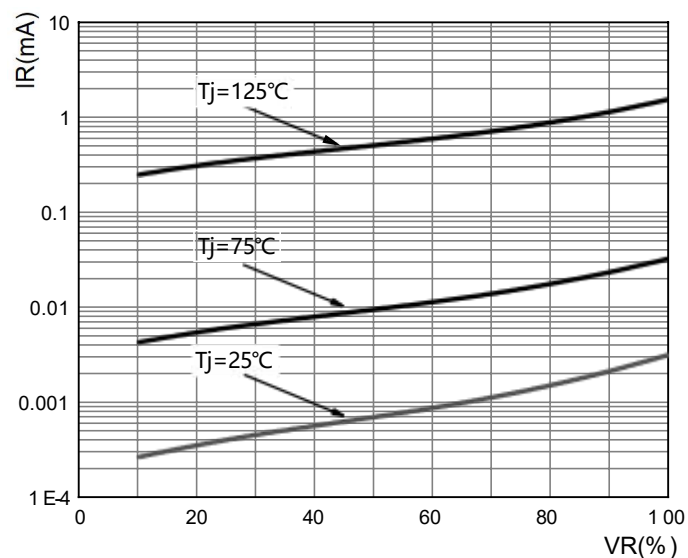
DSS12-SS14

FIG.3: TYPICAL FORWARD CHARACTERISTICS



DSS12-SS14

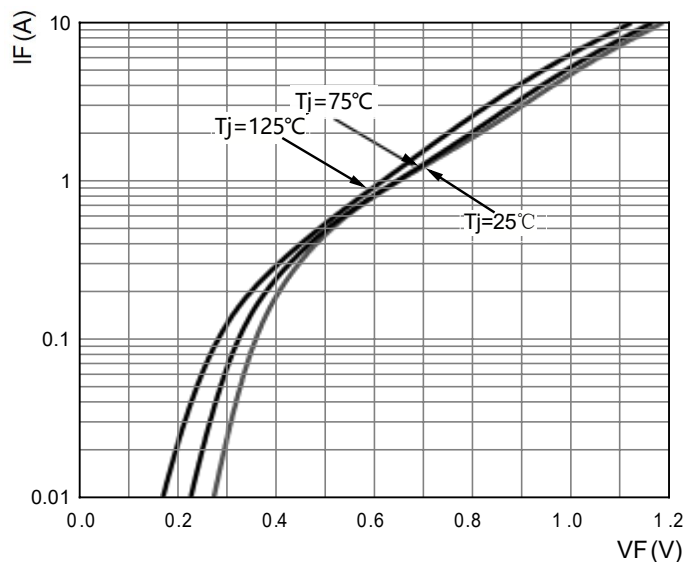
FIG.4: TYPICAL REVERSE CHARACTERISTICS



Typical Characteristics

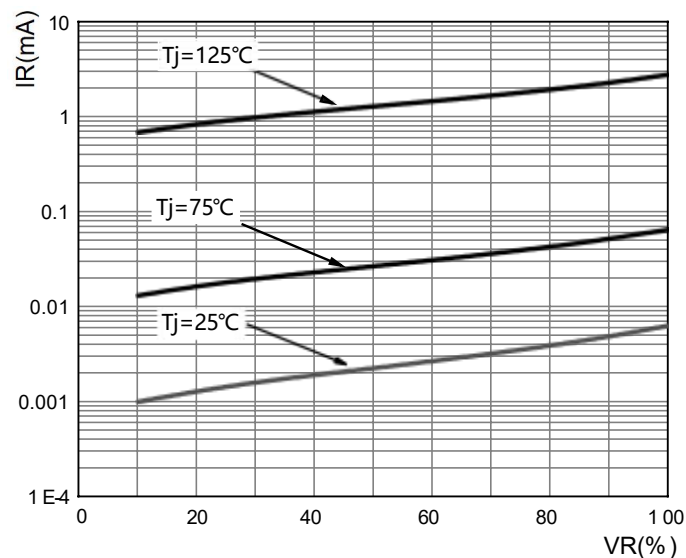
DSS15-DSS16

FIG. 5: TYPICAL FORWARD CHARACTERISTICS



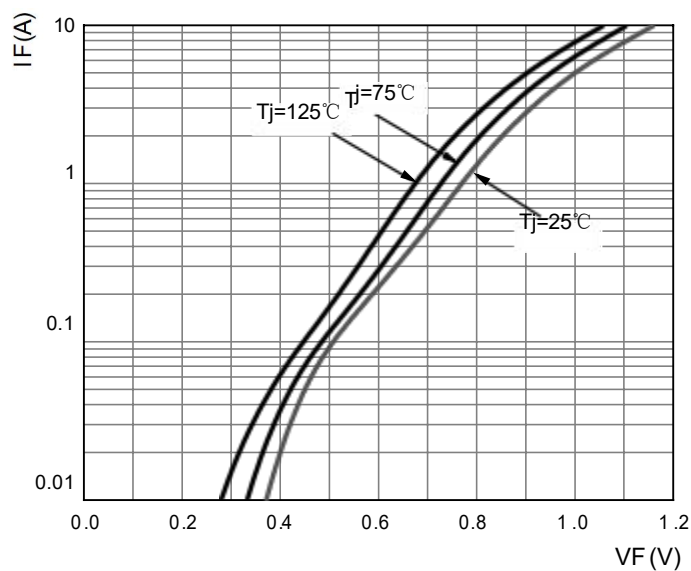
DSS15-DSS16

FIG. 6: TYPICAL REVERSE CHARACTERISTICS



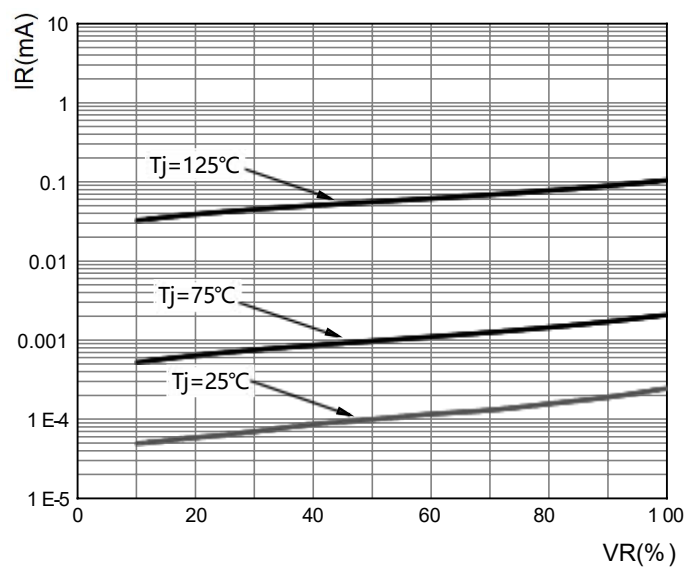
DSS18-DSS110

FIG. 7: TYPICAL FORWARD CHARACTERISTICS



DSS18-DSS110

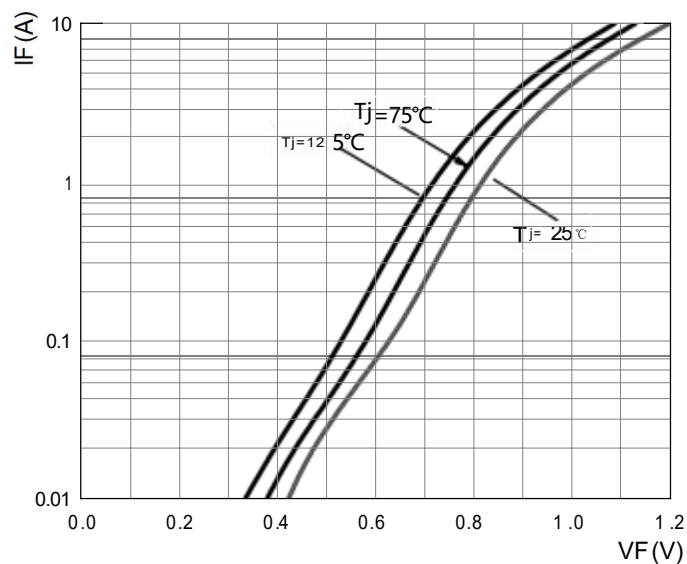
FIG. 8: TYPICAL REVERSE CHARACTERISTICS



Typical Characteristics

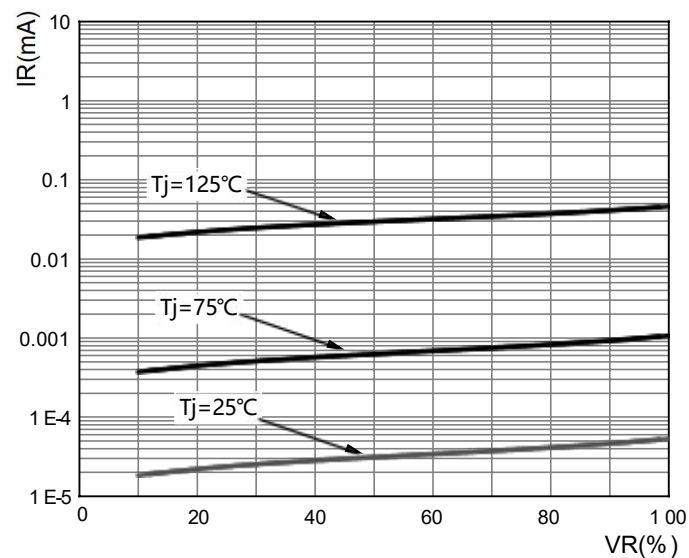
DSS115

FIG. 9: TYPICAL FORWARD CHARACTERISTICS



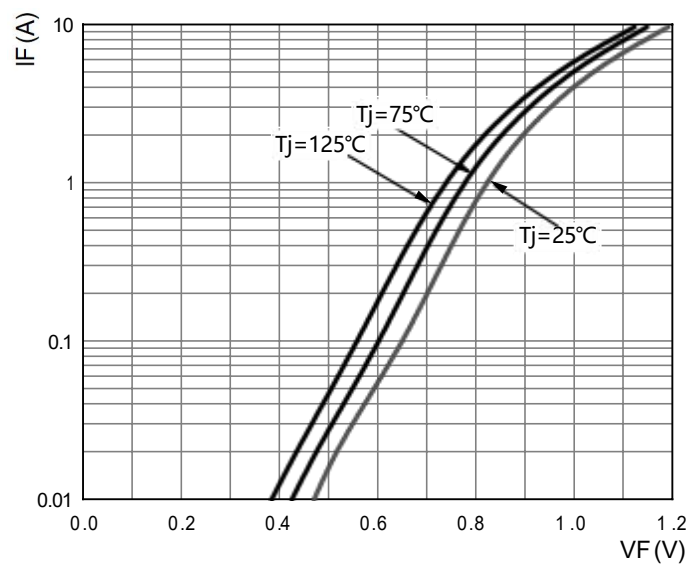
DSS115

FIG. 10: TYPICAL REVERSE CHARACTERISTICS



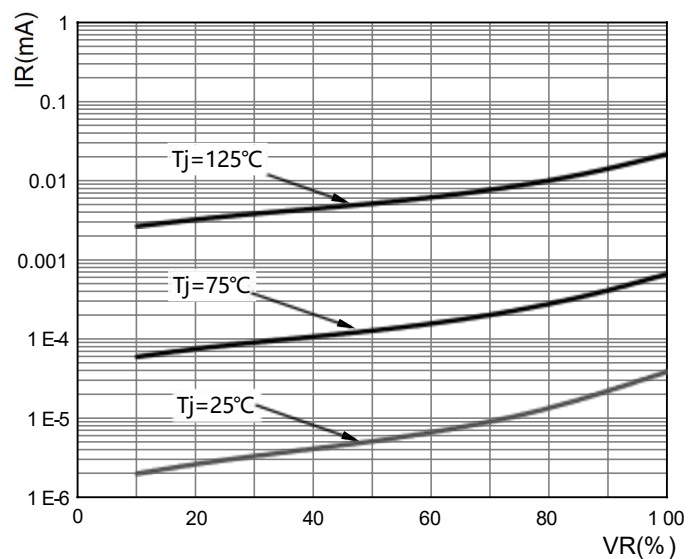
DSS120

FIG. 11: TYPICAL FORWARD CHARACTERISTICS

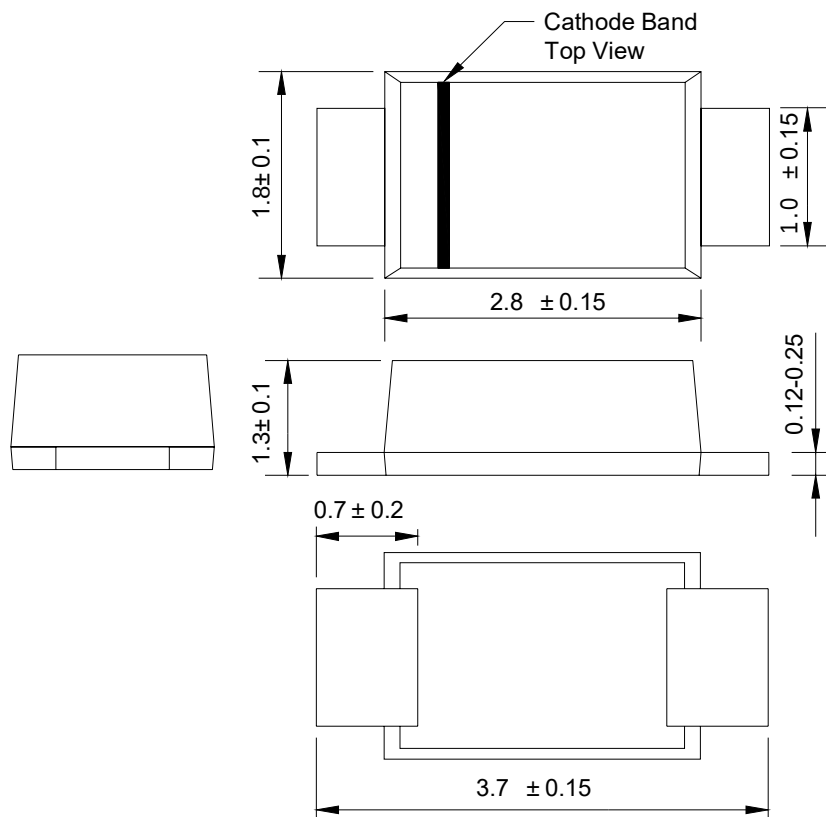


DSS120

FIG. 12: TYPICAL REVERSE CHARACTERISTICS

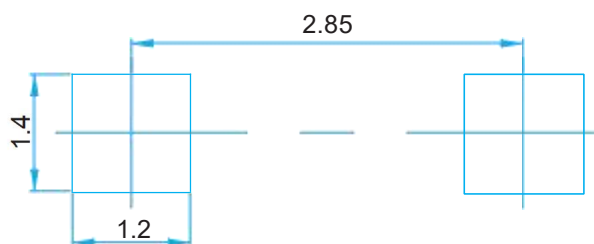


SOD-1 23FL Package outline Dimensions



Dimensions in millimeters

SOD-1 23FL Suggested pad Layout



Note:

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