

Features

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

Applications

- Rectifier

Marking

- S3X (X = 2 TO 20)

SOD-123FL



Limiting values (Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	DSS3								
				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	3.0								
Surge(Non-repetitive)Forward Current	I _{FSM}	A	60Hz Half-sine wave 1 cycle, Ta=25 °C	80								
Junction Temperature	T _J	°C		-55~+150								
Storage Temperature	T _{STG}	°C		-55 ~ +150								

Electrical Characteristics (T=25 °C Unless otherwise specified)

Item	Symbol	Unit	Test Condition		DSS3								
					2	3	4	5	6	8	10	15	20
Peak Forward Voltage	V _{FM}	V	I _{FM} =3.0A		0.55			0.7		0.85		0.95	
Peak Reverse Current	I _{RRM1}	mA	V _{RM} =V _{RRM}	Ta=25℃	0.5			0.1					
	Ta=100℃			10			5.0						
Thermal Resistance(Typical)	R _{eJ-A}	℃/W	Between junction and ambient		54								
	R _{eJ-L}		Between junction and terminal		8.5								
Typical Junction Capacitance	C _J	pF	Measured at 1MHz and applied reverse voltage of 4.0V D.C.		146			117		85		66	57

Typical characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

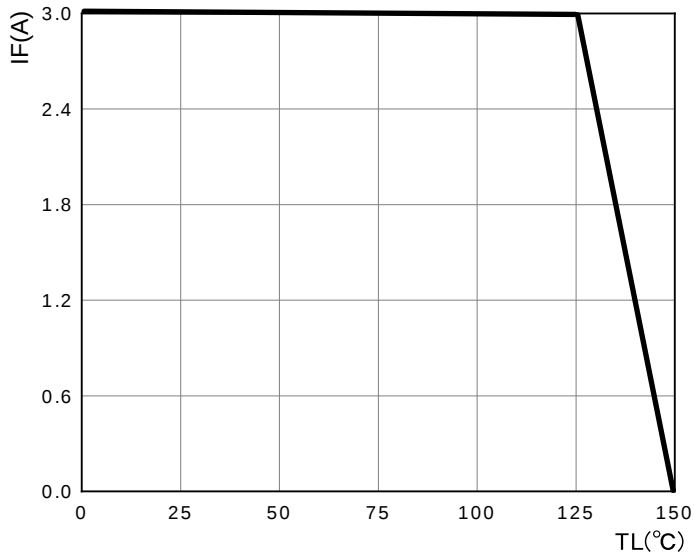
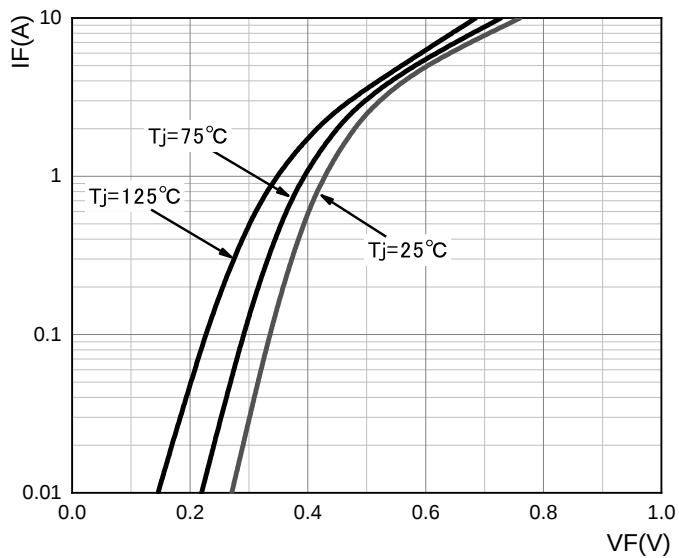


FIG 2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



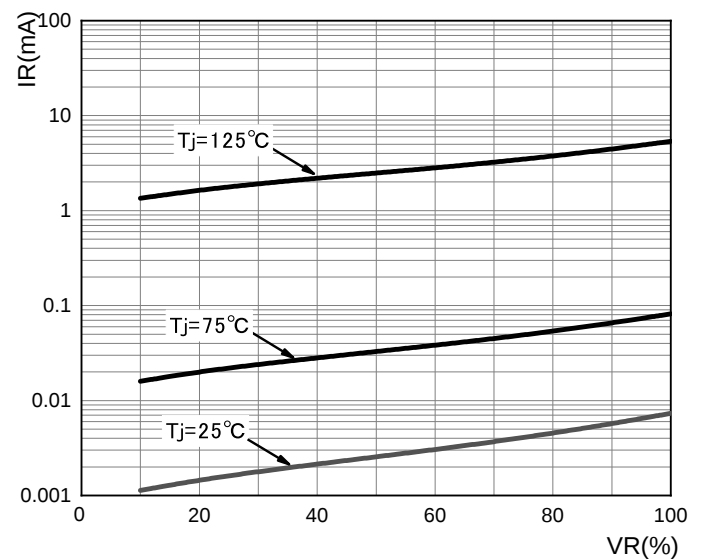
DSS32-DSS34

FIG.3: TYPICAL FORWARD CHARACTERISTICS



DSS32-DSS34

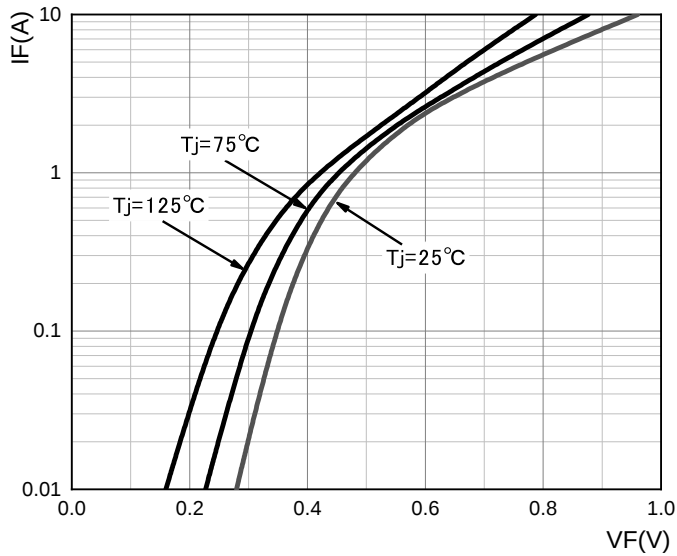
FIG.4: TYPICAL REVERSE CHARACTERISTICS



Typical characteristics

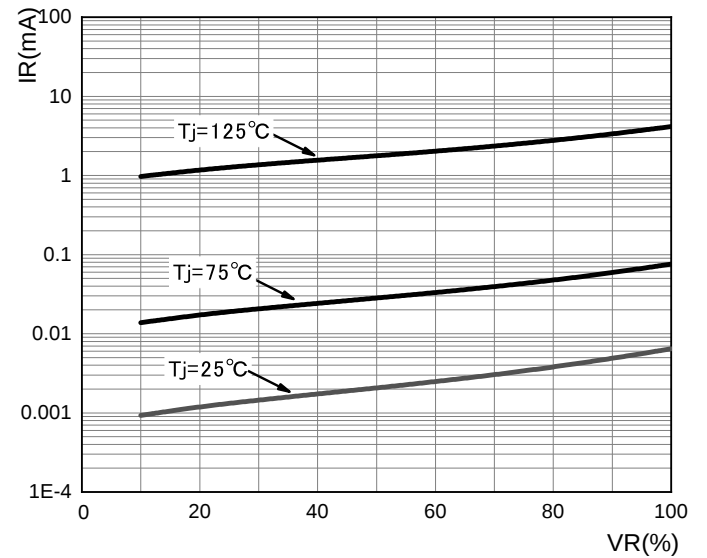
DSS35-DSS36

FIG.5: TYPICAL FORWARD CHARACTERISTICS



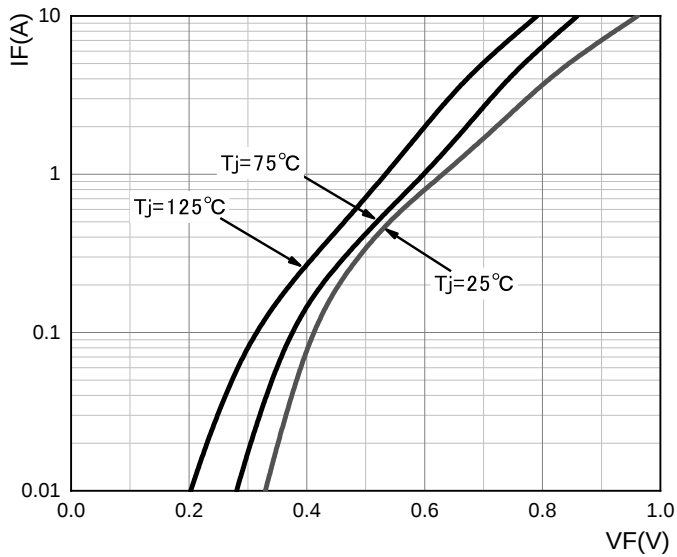
DSS35-DSS36

FIG.6: TYPICAL REVERSE CHARACTERISTICS



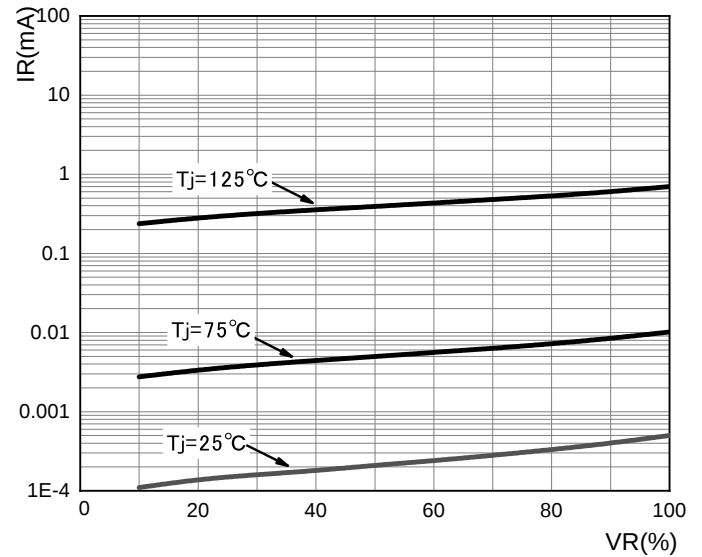
DSS38-DSS310

FIG.7: TYPICAL FORWARD CHARACTERISTICS



DSS38-DSS310

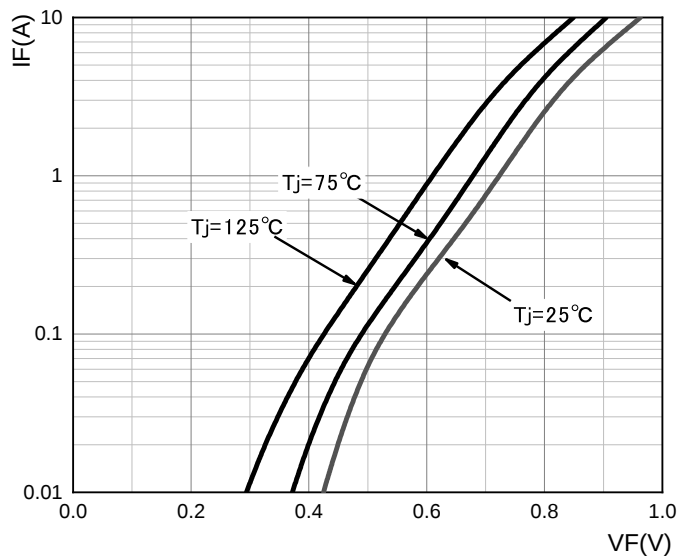
FIG.8: TYPICAL REVERSE CHARACTERISTICS



Typical characteristics

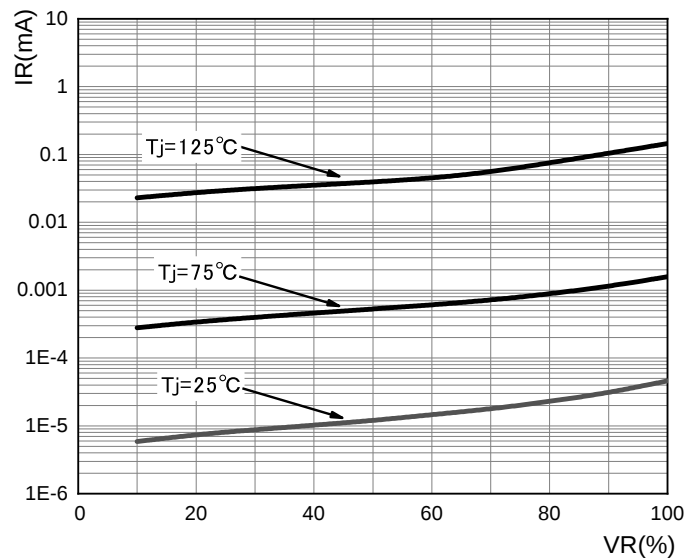
DSS315

FIG.9: TYPICAL FORWARD CHARACTERISTICS



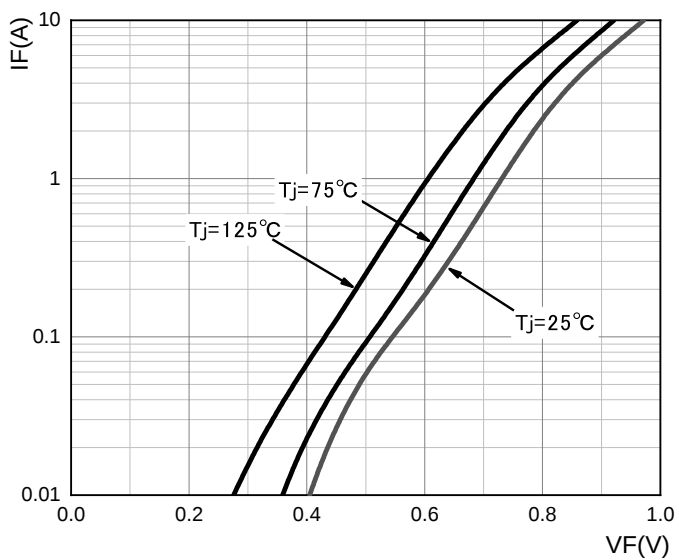
DSS315

FIG.10: TYPICAL REVERSE CHARACTERISTICS



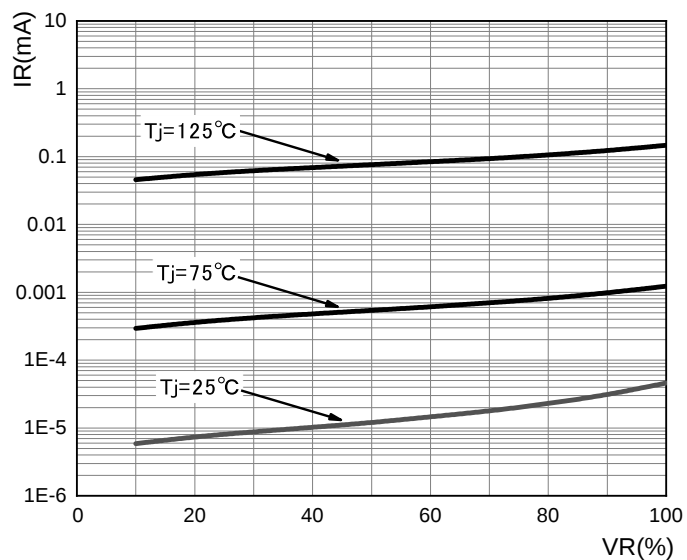
DSS320

FIG.11: TYPICAL FORWARD CHARACTERISTICS

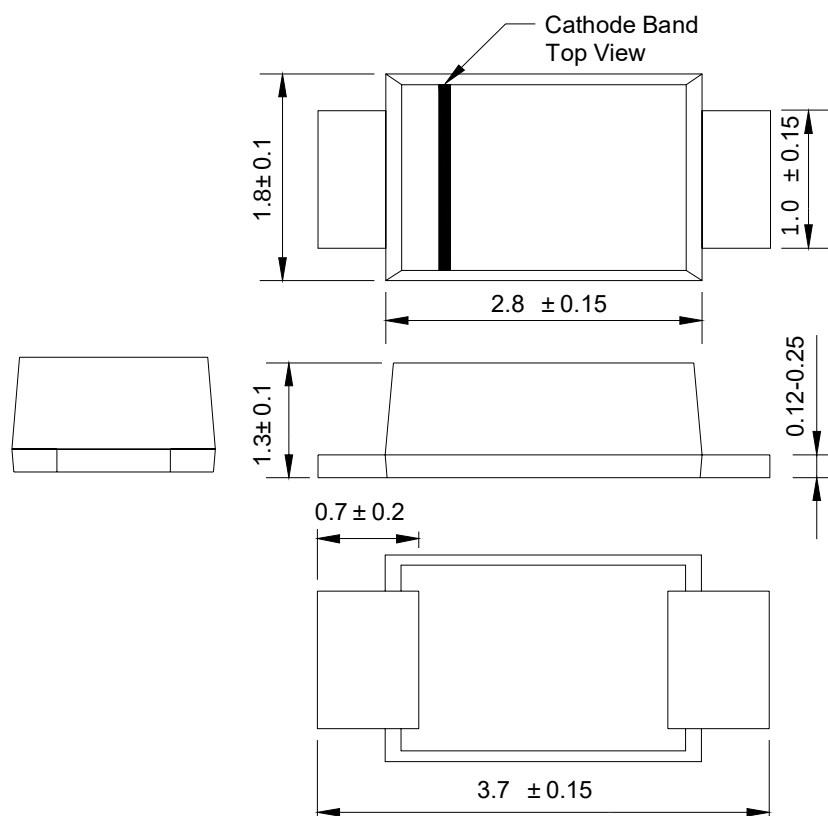


DSS320

FIG.12: TYPICAL REVERSE CHARACTERISTICS

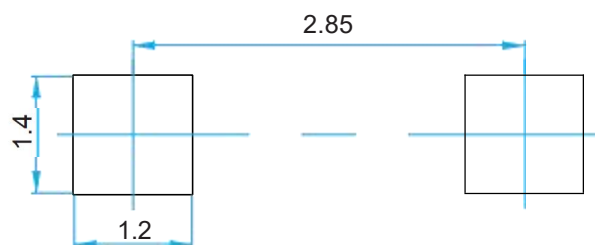


SOD-123FL Package outline Dimensions



Dimensions in millimeters

SOD-123FL Suggested pad Layout



Note:

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