

## SOD-123FL Plastic-Encapsulate Diodes

### DSK32 THRU DSK320 Schottky Rectifier Diodes



#### • Features

- $I_{F(AV)}$  3A
- $V_{RRM}$  20V-200V
- High surge current capability
- Polarity: Color band denotes cathode



SOD-123FL

#### • MAXIMUM RATINGS (T<sub>C</sub>=25°C)

Item	Symbol	Unit	Test Conditions	DSK3								
				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, T <sub>a</sub> =25°C	80								
Junction Temperature	T <sub>J</sub>	°C		-55~+150								
Storage Temperature	T <sub>STG</sub>	°C		-55 ~ +150								

#### • ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C)

Item	Symbol	Unit	Test Condition	DSK3								
				2	3	4	5	6	8	10	15	20
Peak Forward Voltage	$V_F$	V	$I_F=3.0A$	0.55		0.70		0.85		0.95		
Peak Reverse Current	$I_{RRM1}$	mA	$V_{RM}=V_{RRM}$	T <sub>a</sub> =25°C		0.5		0.1				
	$I_{RRM2}$			T <sub>a</sub> =100°C		10		5.0				
Thermal Resistance(Typical)	R <sub>θJ-A</sub>	°C/W	Between junction and ambient	54								
	R <sub>θJ-L</sub>		Between junction and lead	8.5								
Junction Capacitance (Typical)	C <sub>j</sub>	pF	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C	146		117		85		66		57

#### Notes:

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

• **Ordering Information:**

Part NO.	DSK32-DSK320
Marking	K3***
Packing Information	REEL TAPE
Basic ordering unit (pcs)	3000

• **Typical Characteristics**

FIG.1: FORWARD CURRENT DERATING CURVE

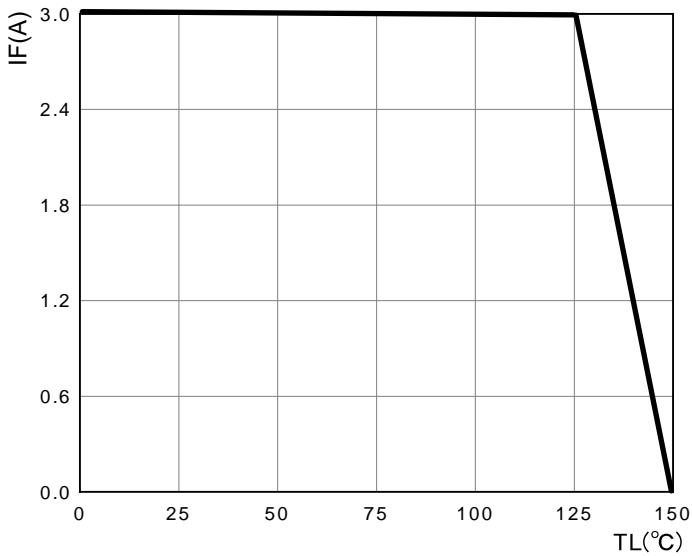
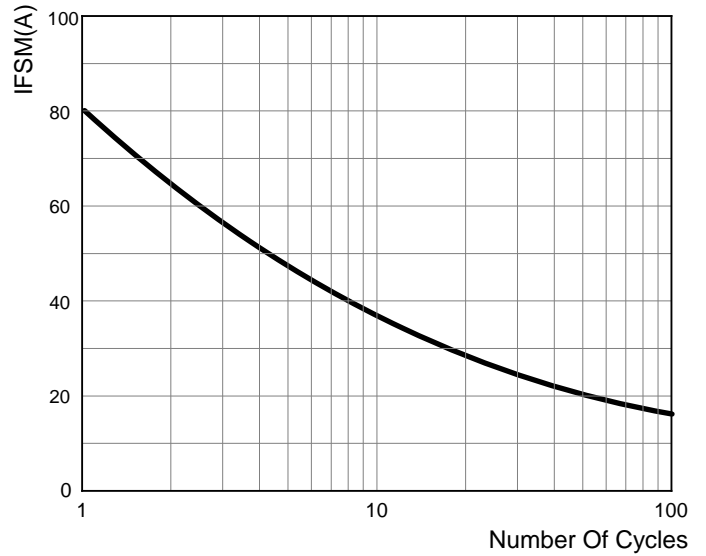
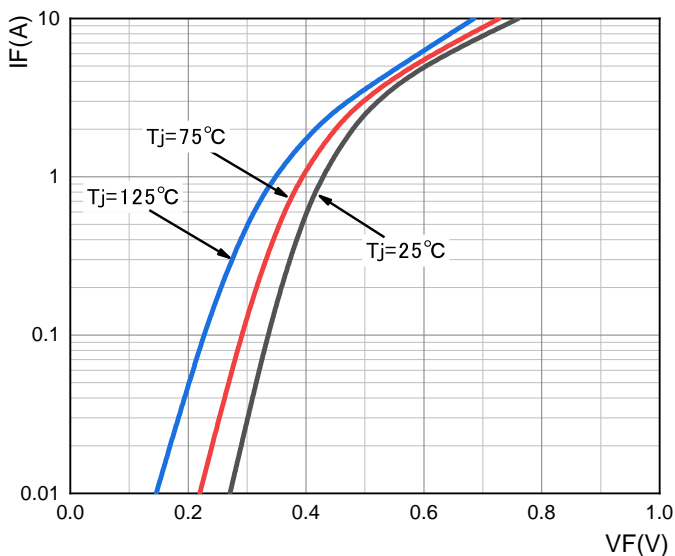


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



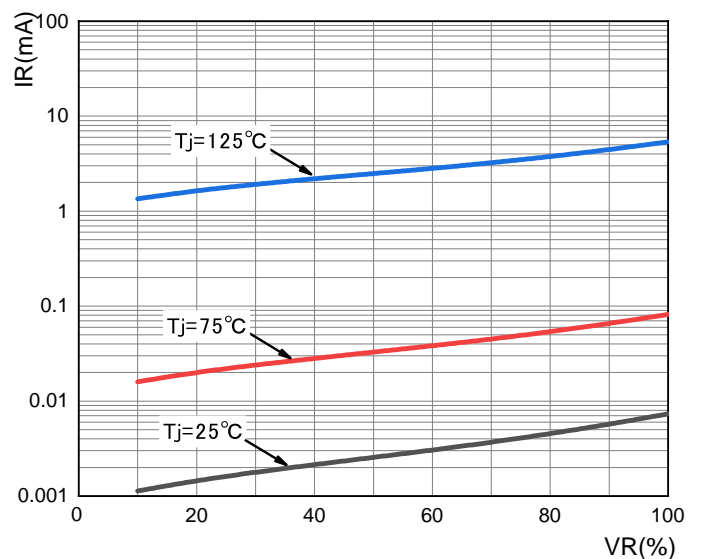
DSK32-DSK34

FIG.3: TYPICAL FORWARD CHARACTERISTICS



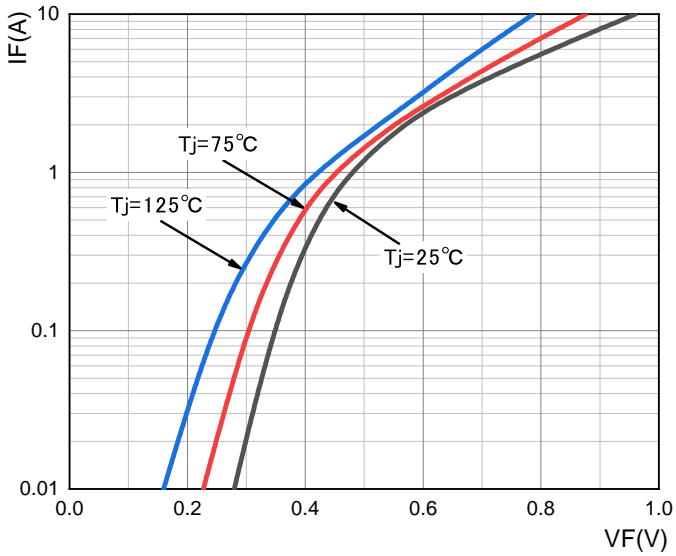
DSK32-DSK34

FIG.4: TYPICAL REVERSE CHARACTERISTICS



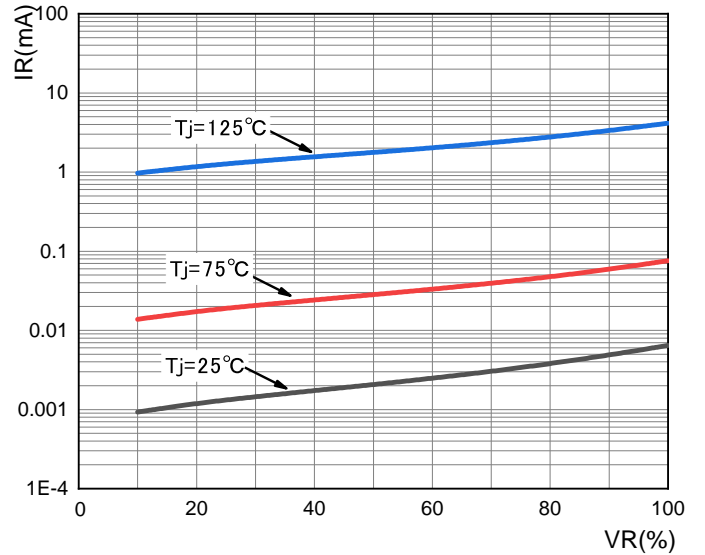
DSK35-DSK36

FIG.5: TYPICAL FORWARD CHARACTERISTICS



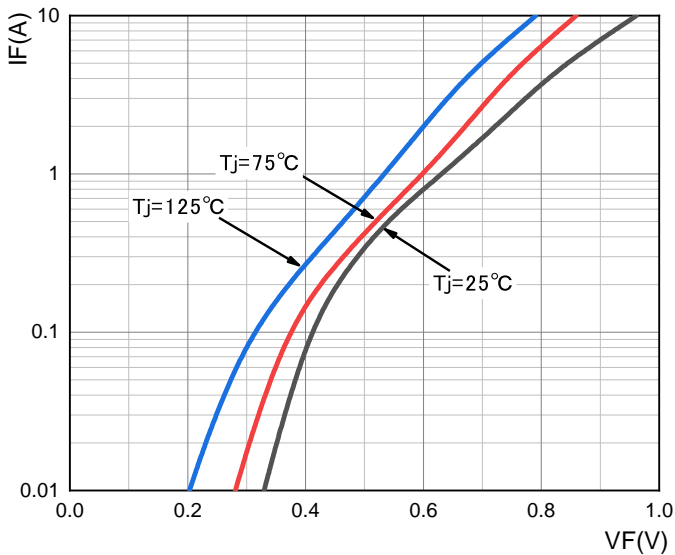
DSK35-DSK36

FIG.6: TYPICAL REVERSE CHARACTERISTICS



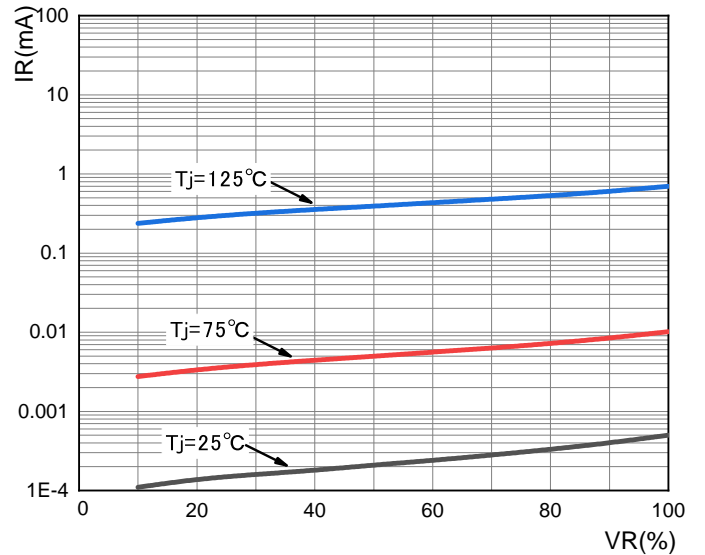
DSK38-DSK310

FIG.7: TYPICAL FORWARD CHARACTERISTICS



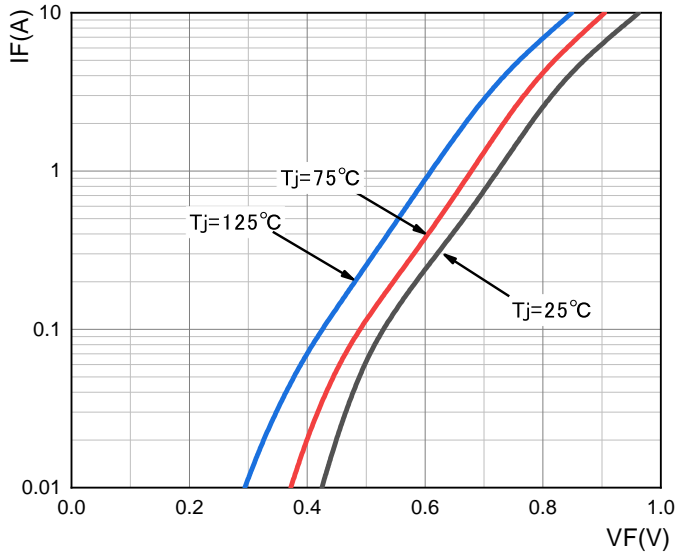
DSK38-DSK310

FIG.8: TYPICAL REVERSE CHARACTERISTICS



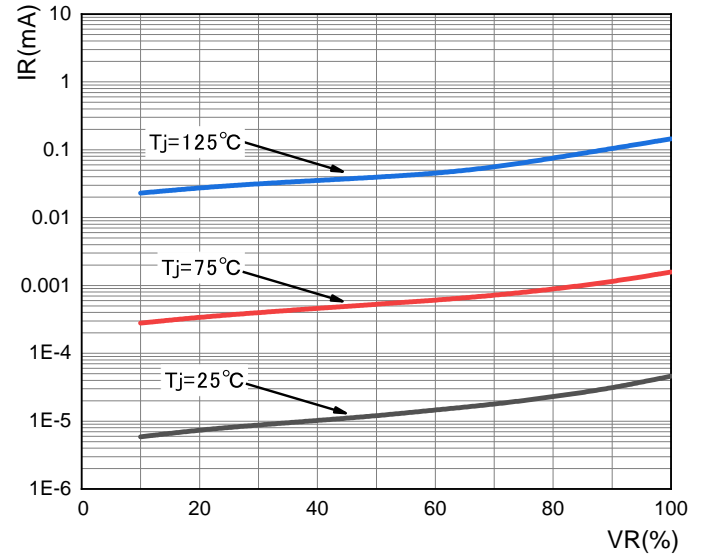
DSK315

FIG.9: TYPICAL FORWARD CHARACTERISTICS



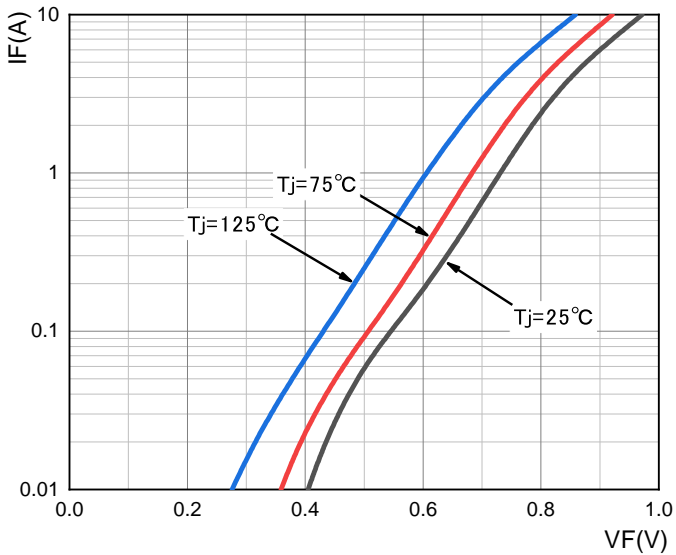
DSK315

FIG.10: TYPICAL REVERSE CHARACTERISTICS



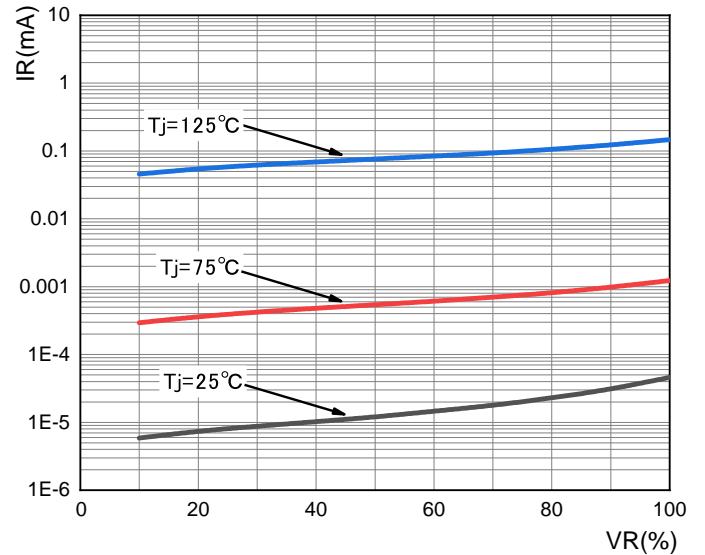
DSK320

FIG.11: TYPICAL FORWARD CHARACTERISTICS

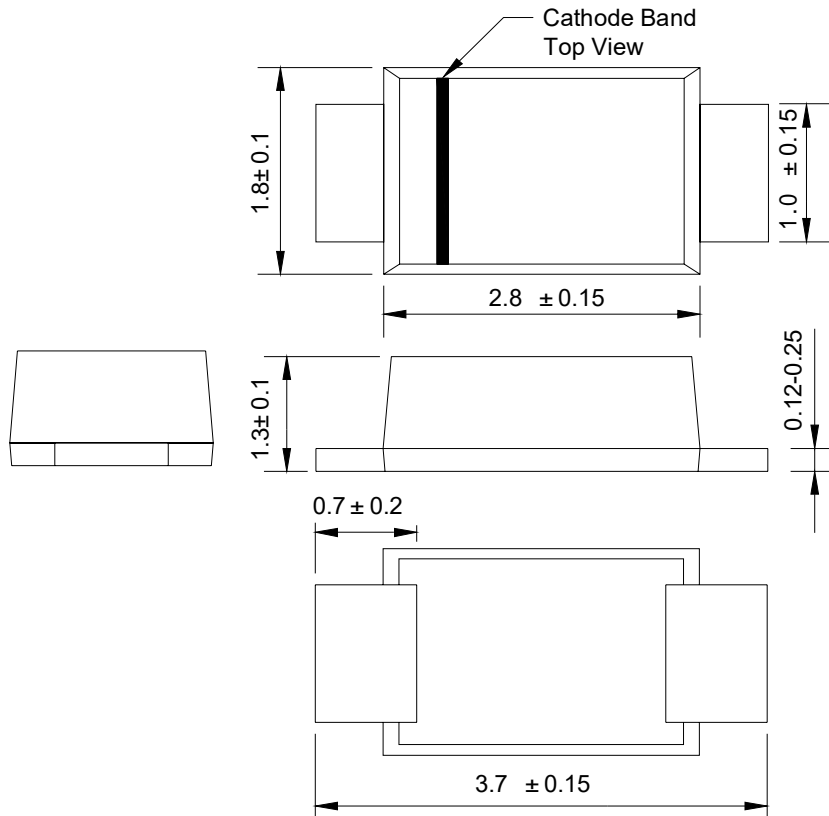


DSK320

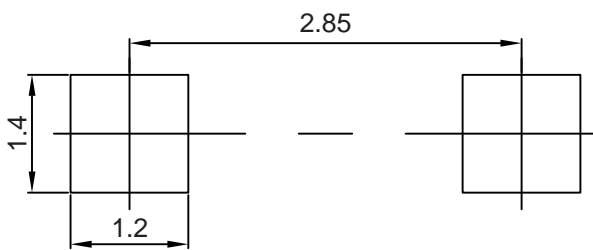
FIG.12: TYPICAL REVERSE CHARACTERISTICS



## SOD-123FL Package Outline Dimensions



Dimensions in millimeters



**Note:**

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