

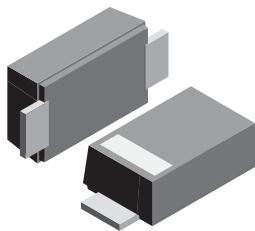


# DSR0.3A - DSR0.3M

## SURFACE MOUNT RECTIFIER DIODES

**VOLTAGE RANGE: 50 - 1000V**

**CURRENT: 0.3 A**

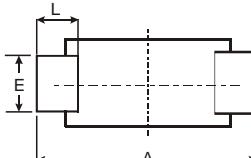
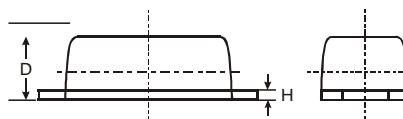
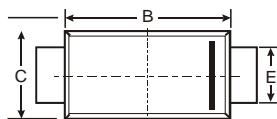


### Features

- Low profile space
- Ideal for automated placement
- Glass passivated chip junctions
- Low forward voltage drop
- Low leakage current
- High forward surge capability
- High temperature soldering  
260°C/10 seconds at terminals

### Mechanical Data

- Case: JEDEC SOD-123FL molded plastic body over passivated chip
- Terminals : Plated axial leads,
- solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight:0.0007 ounce, 0.02 grams



SOD-123FL			
Dim	Min	Max	Typ
A	3.50	3.80	3.65
B	2.60	2.90	2.75
C	1.70	1.90	1.80
D	0.09	1.10	1.00
E	0.08	1.10	0.095
H	0.12	0.20	0.16
L	0.07	0.09	0.08

All Dimensions in mm

### Maximum Ratings and Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified

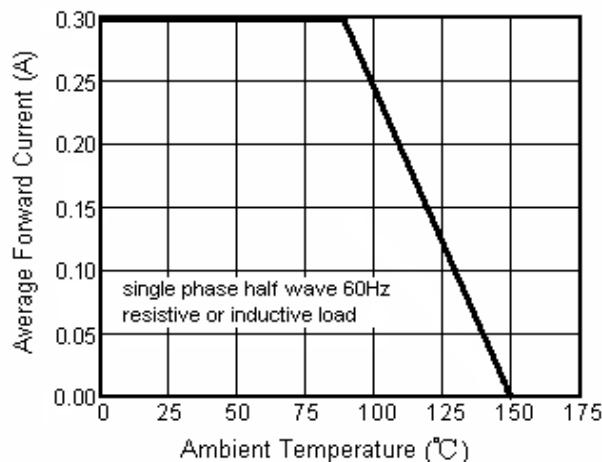
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	DSR 0.3A	DSR 0.3B	DSR 0.3D	DSR 0.3G	DSR 0.3J	DSR 0.3K	DSR 0.3M	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	VOLTS
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	VOLTS
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	VOLTS
Maximum average forward rectified current at $T_A=65^\circ\text{C}$ (NOTE 1)	$I_{(AV)}$	0.3						Amp	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) $T_L=25^\circ\text{C}$	$I_{FSM}$	15.0						Amps	
Maximum instantaneous forward voltage at 0.3A	$V_F$	1.1						Volts	
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$	$I_R$	5.0 50.0						$\mu\text{A}$	
Typical junction capacitance (NOTE 2)	$C_J$	4						$\text{pF}$	
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	220						$\text{K/W}$	
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +150						$^\circ\text{C}$	

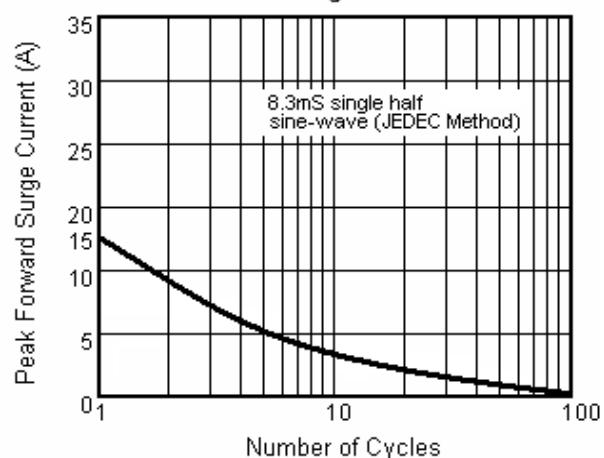
Note1: Mounted on FR-4 P.C.B. With 0.9x1.5 mm copper pad areas ( $\approx 35 \mu\text{m}$  thick)

## RATINGS AND CHARACTERISTIC CURVES DSR0.3A THRU DSR0.3M

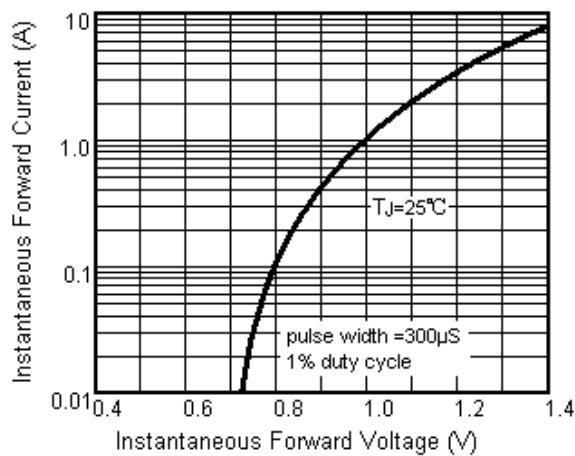
**Fig.1 Forward Current Derating Curve**



**Fig.2 Maximum Non-Repetitive Peak Forward Surge Current**



**Fig.3 Typical Instantaneous Forward Characteristics**



**Fig.4 Typical Reverse Characteristics**

