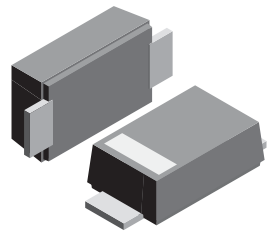
DSR0.5A - DSR0.5M

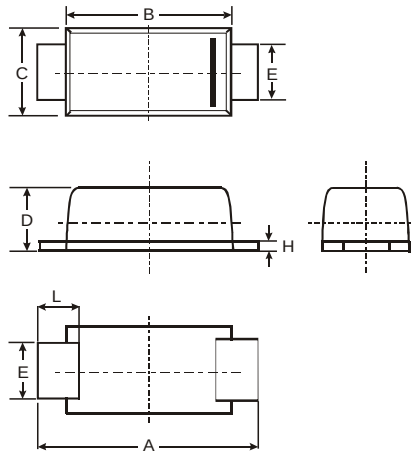
SURFACE MOUNT RECTIFIER DIODES

VOLTAGE RANGE: 50 - 1000V
CURRENT: 0.5A



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℃/10 seconds at terminals



SOD-123FL			
Dim	**Min**	**Max**	**Typ**
A	3.58	3.72	3.65
B	2.72	2.78	2.75
C	1.77	1.83	1.80
D	1.02	1.08	1.05
E	0.097	1.03	1.00
H	0.13	0.17	0.15
L	0.53	0.57	0.55
All Dimensions in mm			

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

RoHS COMPLIANT

Maximum Ratings and Electrical Characteristics T_A = 25°C unless otherwise specified

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

Characteristic	Symbol	DSR 0.5A	DSR 0.5B	DSR 0.5D	DSR 0.5G	DSR 0.5J	DSR 0.5K	DSR 0.5M	Unit
	Marking	05A	05B	05D	05G	05J	05K	05M	
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℃ (NOTE 1)	$I_{(AV)}$	0.5							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) T_L=25℃	I_{FSM}	15.0							Amps
Maximum instantaneous forward voltage at 0.5A	V_F	1.1							Volts
Maximum DC reverse current T_A=25℃ at rated DC blocking voltage T_A=100℃	I_R	5.0 50.0							μA
Typical junction capacitance (NOTE 2)	C_J	4							pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	220							K/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150							°C

Note1: Mounted on FR-4 P.C.B. With 0.9x1.5 mm copper pad areas (≈35μm thick)

RATINGS AND CHARACTERISTIC CURVES DSR0.5A THRU DSR0.5M

Fig.1 Forward Current Derating Curve

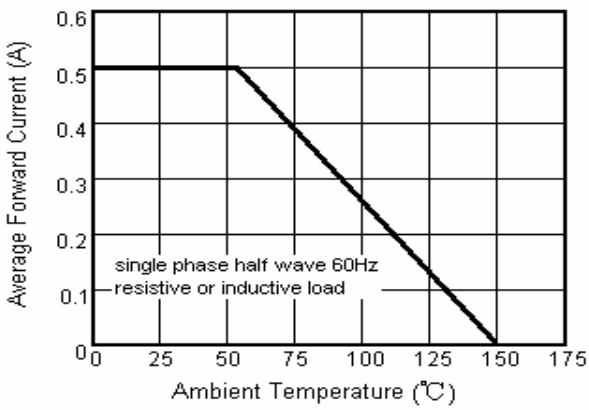


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

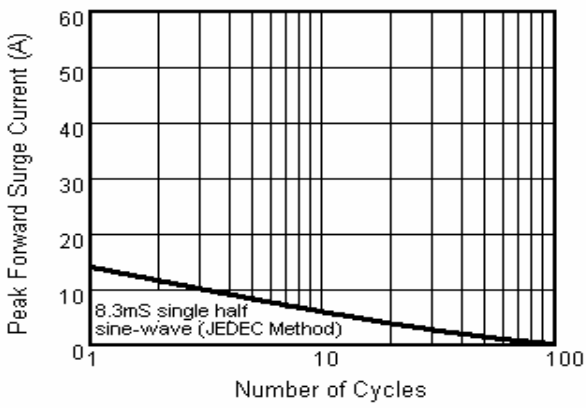


Fig.3 Typical Instantaneous Forward Characteristics

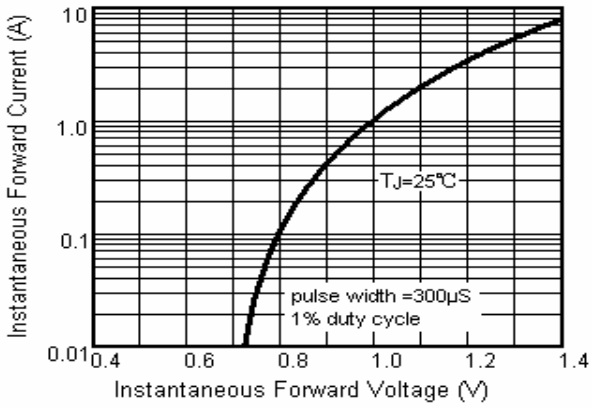


Fig.4 Typical Reverse Characteristics

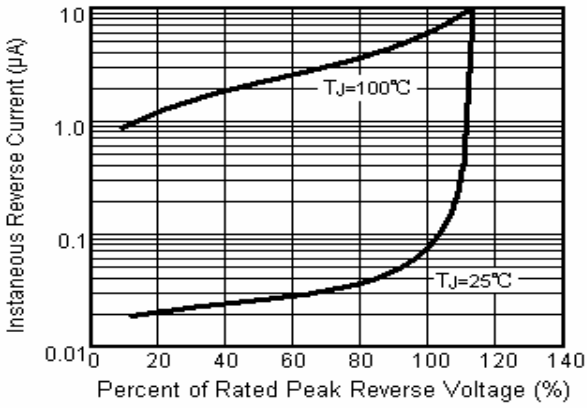


Fig.5 Typical Junction Capacitance