



**THE DATASHEET OF  
DSK110**



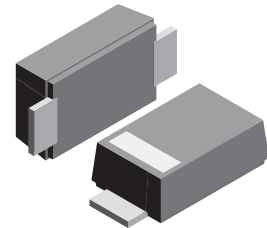
## SURFACE MOUNT SCHOTTKY BARRIER DIODES

**VOLTAGE RANGE: 20 - 200V**

**CURRENT: 1.0 A**

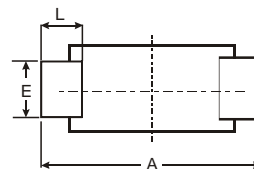
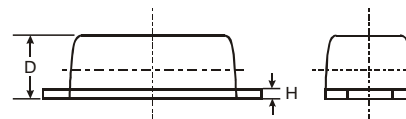
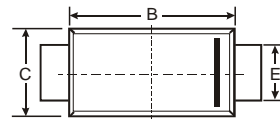
### Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High forward surge current capability
- High temperature soldering guaranteed:  
250°C/10 seconds, 0.375(9.5mm) lead length,  
5 lbs. (2.3kg) tension



### Mechanical Data

- Case: SOD-123FL  
plastic body over passivated junction
- 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	3.58	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			

### Maximum Ratings and Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise specified

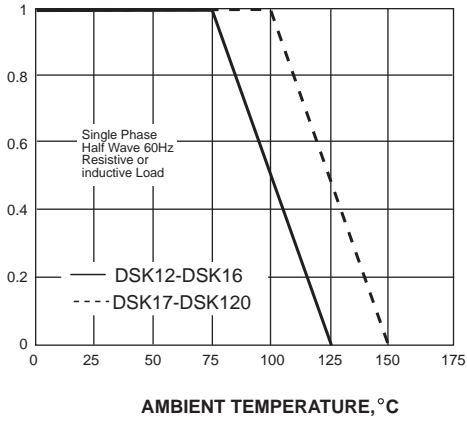
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	DSK12	DSK13	DSK14	DSK15	DSK16	DSK17	DSK18	DSK19	DSK110	DSK115	DSK120	Unit	
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	50	60	70	80	90	100	150	200	V	
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	35	42	49	56	63	70	105	140	V	
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	40	50	60	70	80	90	100	150	200	V	
Maximum average forward rectified current	I <sub>(AV)</sub>	1.0											A	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	25.0											A	
Maximum instantaneous forward voltage at 1.0A	V <sub>F</sub>	0.55			0.70			0.85			0.95		V	
Maximum DC reverse current at rated DC blocking voltage	I <sub>R</sub>	0.5					0.2					mA		
<small>T<sub>A</sub>=25°C</small> <small>T<sub>A</sub>=100°C</small>		10.0					5.0						2.0	
Typical junction capacitance (NOTE 1)	C <sub>J</sub>	110					80							pF
Operating junction temperature range	T <sub>J</sub>	-65 to +125						-65 to +150						°C
Storage temperature range	T <sub>STG</sub>	-65 to +150											°C	

**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

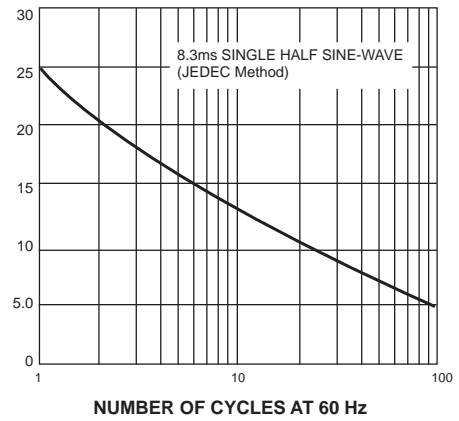
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



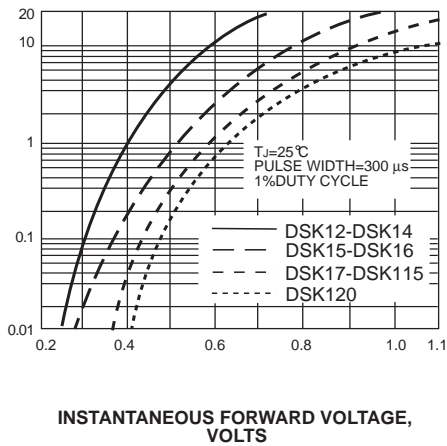
PEAK FORWARD SURGE CURRENT, AMPERES

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



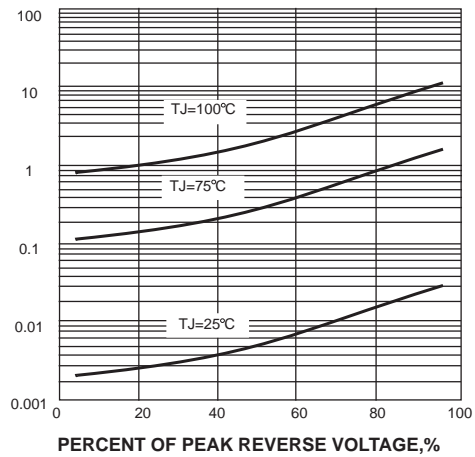
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



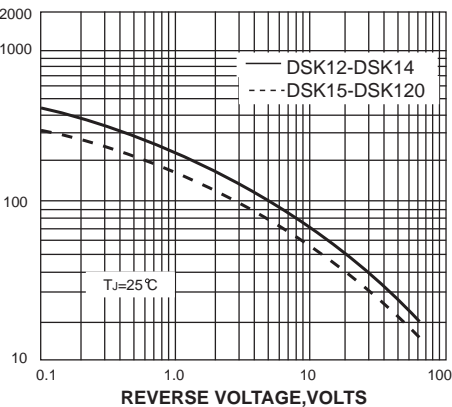
INSTANTANEOUS REVERSE CURRENT, MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS





JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE









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