



K12 THRU K120

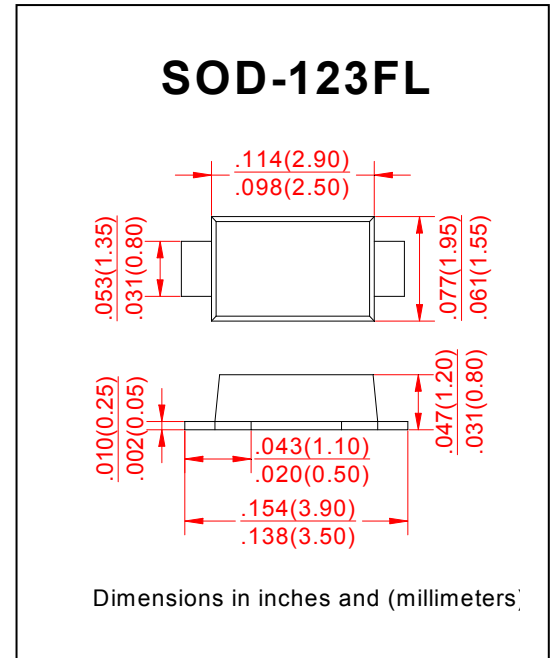
VOLTAGE RANGE
20 to 200 Volts
CURRENT
1.0 Ampere

Features

- Low profile surface mount package
- Built-in strain relief
- High switching speed
- Low voltage drop, high efficiency
- For use in low voltage high frequency inverters, Free willing, and polarity protection applications
- Guarding for over voltage protection

Mechanical Data

- Case: Transfer molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead :Solder plated, solderable per MIL-STD-750 method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.00063ounce, 0.018grams



Maximum Ratings and Electrical Characteristics

- Ratings at 25°C ambient temperature unless otherwise specified.
- Single phase, half wave, 60Hz, resistive or inductive load.
- For capacitive load derate current by 20%.

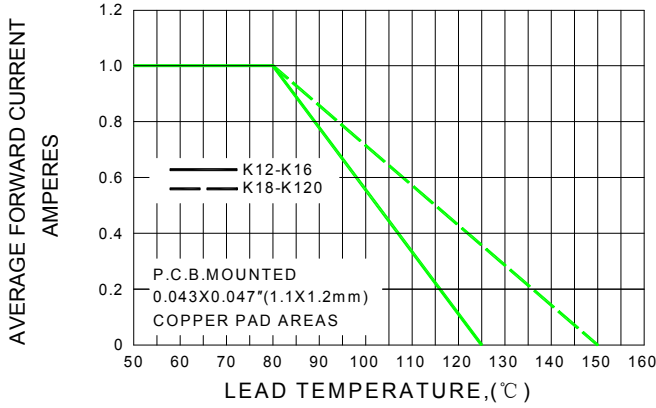
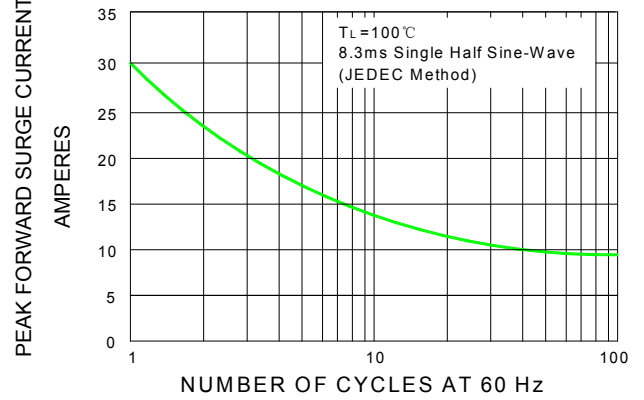
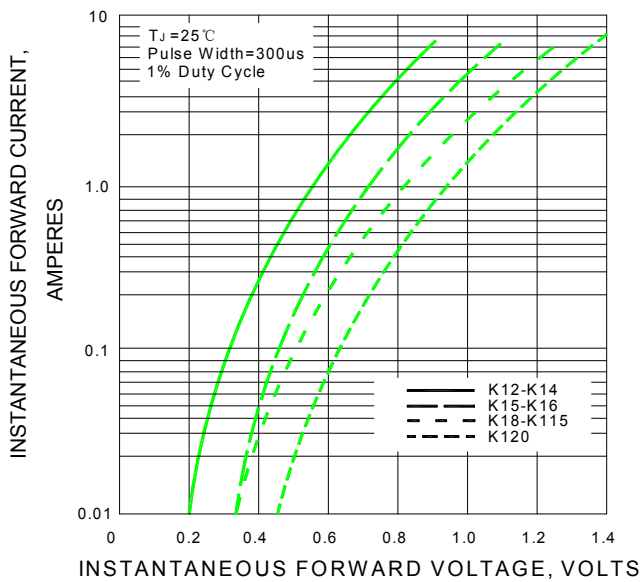
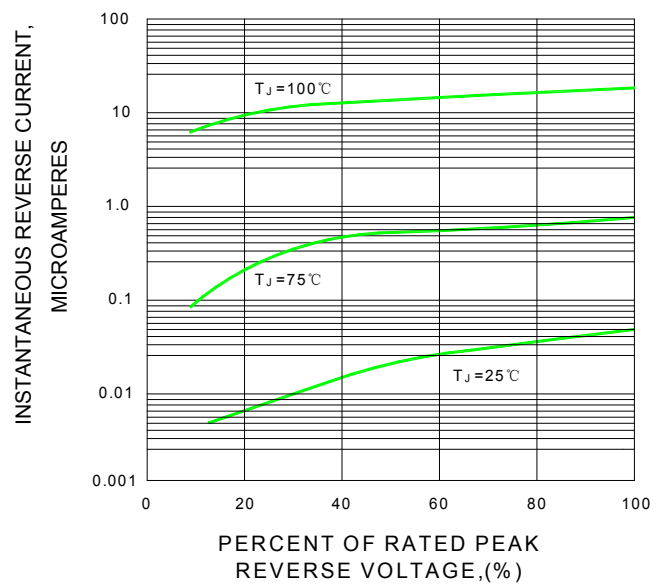
TYPE NUMBER	SYMBOLS	K12	K14	K15	K16	K18	K110	K115	K120	UNIT	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	40	50	60	80	100	150	200	Volts	
Maximum RMS Voltage	V_{RMS}	14	28	35	42	56	70	105	140	Volts	
Maximum DC Blocking Voltage	V_{DC}	20	40	50	60	80	100	150	200	Volts	
Maximum Average Forward Rectified Current at T_L see figure 1 $T_L = 105^\circ C$	$I_{(AV)}$	1.0								Amps	
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30								Amps	
Maximum Instantaneous Forward Voltage @ 1.0A(Note1)	V_F	0.55	0.70			0.85		0.95		Volts	
Maximum DC Reverse Current at rated DC Blocking Voltage per element	$T_A = 25^\circ C$	0.5						0.3		mA	
	$T_A = 100^\circ C$	20.0			10.0		5.0				
Operating Junction Temperature (Note 2)	T_J	(-55 to +125)				(-55 to +150)				°C	
Storage Temperature Range	T_{STG}	(-55 to +125)									°C

Notes:

1. Pulse test:300µs pulse width,1% duty cycle.
2. PCB mounted with 0.043"x0.047"(1.10mm×1.20mm)copper pads.



Ratings and Characteristic Curves (TA=25°C unless otherwise noted)

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**