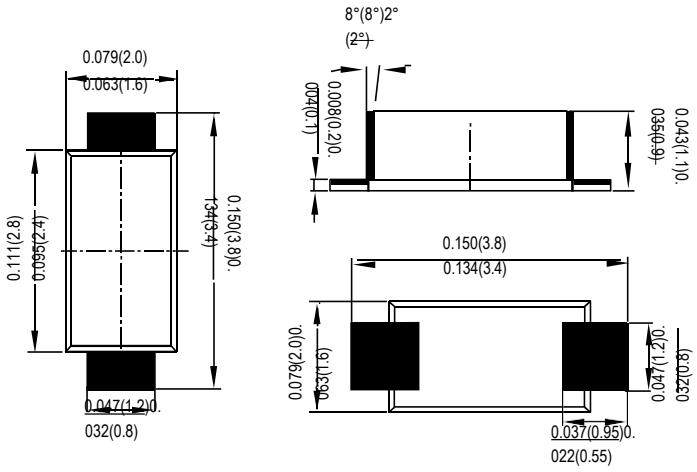
PECLERS®

K12THRUK125

SINGLE PHASE 1.0AMP SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

SOD-123FL



Dimensions in inches and (millimeters)

Features

The plastic package carries Underwriters Laboratory Flammability Classification 94V-0

Metal silicon junction,majority carrier conduction

Low power loss,high efficiency

High temperature soldering guaranteed: 260℃/10 seconds,0.375"(9.5mm) lead length, 5 lbs. (2.3kg) tension

Mechanical Data

Case: SOD-123FL, molded plastic

Terminals: plated leads solderableper MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting position: Any

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

TYPE NUMBER	SYMBOL	K12	K13	K14	K15	K16	K18	K110	K115	K120	K125	UNITS
	Code	D12	D13	D14	D15	D16	D18	D110	D115	D120	D125	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_{DC}	20	30	40	50	60	80	100	150	200	250	V
RMS Reverse Voltage	V_{RMS}	14	21	28	35	42	56	70	105	140	175	V
Average Rectified Output Current @T_L =90℃	$I_{F(AV)}$	1.0										A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30										A
I^2t Rating for Fusing (t < 8.3ms)	I^2t	3.735										A^2s
Forward Voltage per element @IF=1.0A	V_{FM}	0.55			0.7		0.85		0.92		0.95	V
Peak Reverse Current @T_A=25℃ At Rated DC Blocking Voltage @T_A=100℃	I_R	0.1					0.05					mA
		10					5					
Typical junction capacitance (NOTE 1)	C_J	110			80							pF
Operating junction temperature range	T_J	-55to+150										℃
Operating and Storage Temperature Range	T_{STG}	-55to+150										℃

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

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FIG. 1- FORWARD CURRENT DERATING CURVE

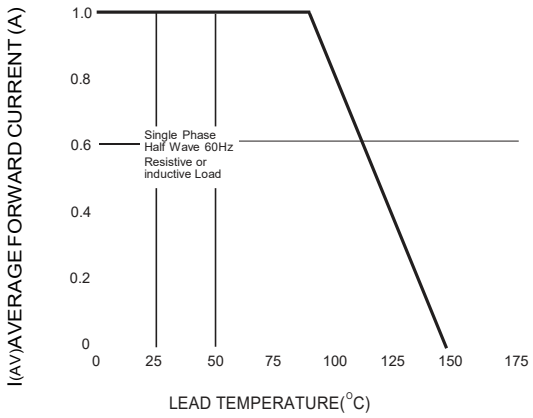

FIG. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

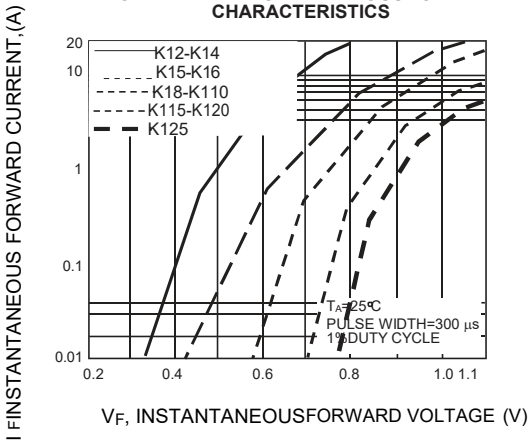

FIG. 3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

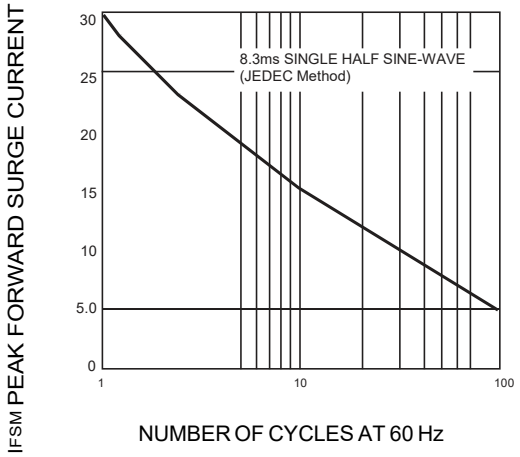

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

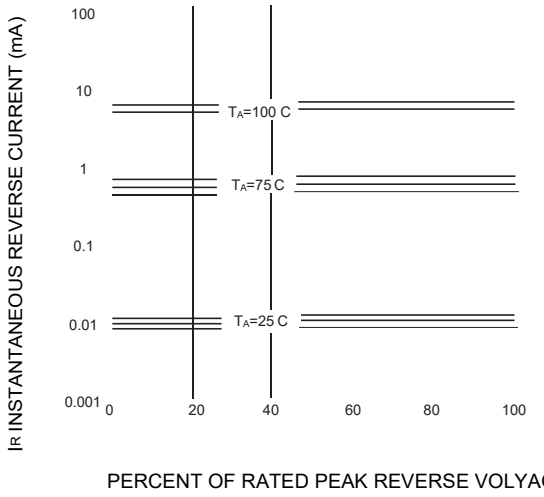

Fig.5 TYPICAL CAPACITANCE