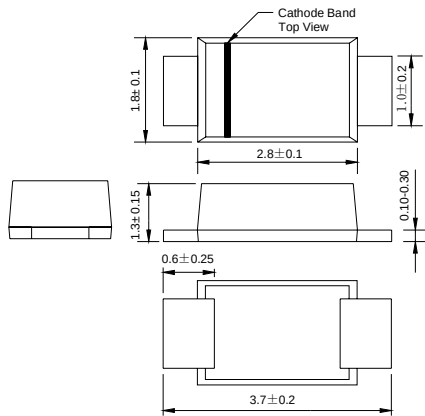
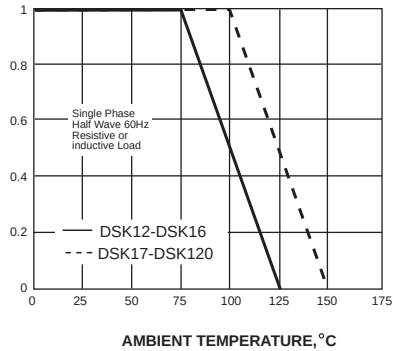


SOD-123FL  Dimensions in millimeters	FEATURES ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0 ◆ Metal silicon junction,majority carrier conduction ◆ Low power loss,high efficiency ◆ High forward surge current capability ◆ High temperature soldering guaranteed: 250°C/10 seconds,0.375”(9.5mm) lead length, 5 lbs. (2.3kg) tension MECHANICAL DATA Case: JEDEC SOD-123FL molded plastic body Terminals: Solderable per MIL-STD-750, Method 2026 Polarity: Color band denotes cathode end Mounting Position: Any Weight:0.0007 ounce, 0.02 grams																																																																																																																																																																																				
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 current derate by 20%. <table><tr><th>Catalog Number</th><th>SYMBOLS</th><th>DSK12 K12</th><th>DSK13 K13</th><th>DSK14 K14</th><th>DSK15 K15</th><th>DSK16 K16</th><th>DSK17 K17</th><th>DSK18 K18</th><th>DSK19 K19</th><th>DSK110 K110</th><th>DSK115 K115</th><th>DSK120 K120</th><th>UNITS</th></tr><tr><td>Maximum repetitive peak reverse voltage</td><td>V_{RRM}</td><td>20</td><td>30</td><td>40</td><td>50</td><td>60</td><td>70</td><td>80</td><td>90</td><td>100</td><td>150</td><td>200</td><td>VOLTS</td></tr><tr><td>Maximum RMS voltage</td><td>V_{RMS}</td><td>14</td><td>21</td><td>28</td><td>35</td><td>42</td><td>49</td><td>56</td><td>63</td><td>70</td><td>105</td><td>140</td><td>VOLTS</td></tr><tr><td>Maximum DC blocking voltage</td><td>V_{DC}</td><td>20</td><td>30</td><td>40</td><td>50</td><td>60</td><td>70</td><td>80</td><td>90</td><td>100</td><td>150</td><td>200</td><td>VOLTS</td></tr><tr><td>Maximum average forward rectified current</td><td>I_(AV)</td><td colspan="11">1.0</td><td>Amp</td></tr><tr><td>Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)</td><td>I_{FSM}</td><td colspan="11">25.0</td><td>Amps</td></tr><tr><td>Maximum instantaneous forward voltage at 1.0A</td><td>V_F</td><td colspan="2">0.55</td><td colspan="2">0.70</td><td colspan="4">0.85</td><td colspan="3">0.95</td><td>Volts</td></tr><tr><td>Maximum DC reverse current T_A=25°C at rated DC blocking voltage T_A=100°C</td><td>I_R</td><td colspan="8">0.5</td><td colspan="2">0.2</td><td colspan="2" rowspan="2">mA</td></tr><tr><td></td><td></td><td colspan="4">10.0</td><td colspan="4">5.0</td><td colspan="2">2.0</td></tr><tr><td>Typical junction capacitance (NOTE 1)</td><td>C_J</td><td colspan="4">110</td><td colspan="8">80</td><td>pF</td></tr><tr><td>Operating junction temperature range</td><td>T_J</td><td colspan="5">-65 to +125</td><td colspan="7">-65 to +150</td><td>°C</td></tr><tr><td>Storage temperature range</td><td>T_{STG}</td><td colspan="11">-65 to +150</td><td>°C</td></tr></table> Note:1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.														Catalog Number	SYMBOLS	DSK12 K12	DSK13 K13	DSK14 K14	DSK15 K15	DSK16 K16	DSK17 K17	DSK18 K18	DSK19 K19	DSK110 K110	DSK115 K115	DSK120 K120	UNITS	Maximum repetitive peak reverse voltage	V _{RRM}	20	30	40	50	60	70	80	90	100	150	200	VOLTS	Maximum RMS voltage	V _{RMS}	14	21	28	35	42	49	56	63	70	105	140	VOLTS	Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	70	80	90	100	150	200	VOLTS	Maximum average forward rectified current	I _(AV)	1.0											Amp	Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	25.0											Amps	Maximum instantaneous forward voltage at 1.0A	V _F	0.55		0.70		0.85				0.95			Volts	Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =100°C	I _R	0.5								0.2		mA				10.0				5.0				2.0		Typical junction capacitance (NOTE 1)	C _J	110				80								pF	Operating junction temperature range	T _J	-65 to +125					-65 to +150							°C	Storage temperature range	T _{STG}	-65 to +150											°C
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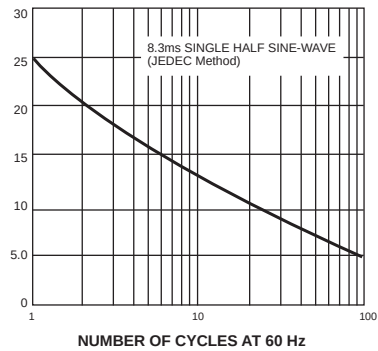
AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



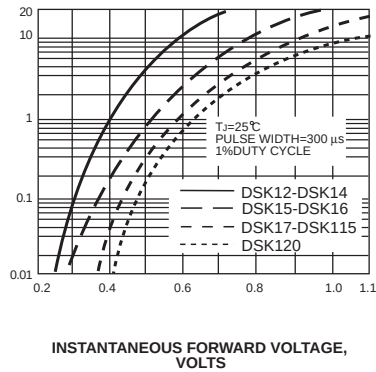
PEAK FORWARD SURGE CURRENT,
AMPERES

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



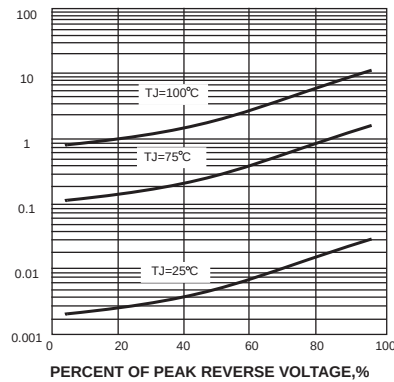
INSTANTANEOUS FORWARD
CURRENT,AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT,
MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE

