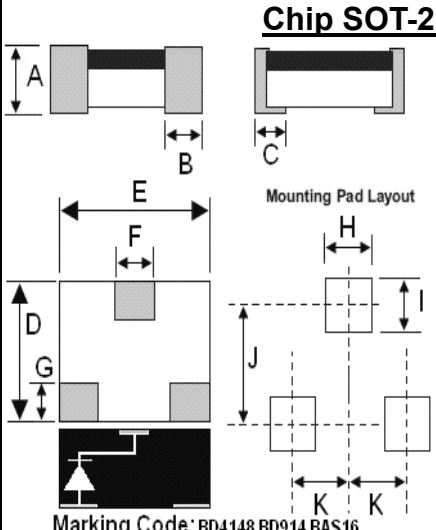


SURFACE MOUNT FAST SWITCHING DIODE	REVERSE VOLTAGE – 70 Volts FORWARD CURRENT – 0.20 Ampere																																				
<p>FEATURES</p> <ul style="list-style-type: none"> For Surface Mounted Applications. Silicon Epitaxial Planer Diode. Fast switching single chip. <p>MECHANICAL DATA</p> <ul style="list-style-type: none"> Case: SOT-23 plastic Case Material: “Green” molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl) Weight: 21m grams 	<div style="text-align: center;"> <p>Chip SOT-23</p>  <p>Marking Code: BD4148, BD914, BAS16</p> </div> <table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse; text-align: center;"> <thead> <tr> <th colspan="3">Chip SOT-23</th> </tr> <tr> <th>Dim.</th> <th>Min.</th> <th>Max.</th> </tr> </thead> <tbody> <tr><td>A</td><td>0.75</td><td>0.95</td></tr> <tr><td>B</td><td>0.70</td><td>0.80</td></tr> <tr><td>C</td><td>0.35</td><td>0.75</td></tr> <tr><td>D</td><td>2.40</td><td>2.60</td></tr> <tr><td>E</td><td>2.90</td><td>3.10</td></tr> <tr><td>F</td><td>0.70</td><td>0.80</td></tr> <tr><td>G</td><td>0.20</td><td>0.40</td></tr> <tr><td>H & I</td><td colspan="2">0.9 Min.</td></tr> <tr><td>J</td><td colspan="2">2.0 Typ.</td></tr> <tr><td>K</td><td colspan="2">1.14 Typ.</td></tr> </tbody> </table> <p style="text-align: center; font-size: small;">All Dimensions in millimeter</p>	Chip SOT-23			Dim.	Min.	Max.	A	0.75	0.95	B	0.70	0.80	C	0.35	0.75	D	2.40	2.60	E	2.90	3.10	F	0.70	0.80	G	0.20	0.40	H & I	0.9 Min.		J	2.0 Typ.		K	1.14 Typ.	
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Maximum Ratings and Thermal Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Units
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage	V_{RRM}	70	V
Forward Continuous Current	I_F	200	mA
Non-Repetitive Peak Forward Current t < 1.0s, T_J = 25°C	I_{FSM}	0.5	A
Average Forward Current (Note 1)	I_{FAV}	150	mA
Power Dissipation (Note 1)	P_D	350	mW
Thermal Resistance Junction to Ambient Air (Note 1)	$R_{\theta JA}$	450	°C/W
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Parameter	Symbol	Value	Unit	Test Condition
Minimum Reverse Breakdown Voltage	$V_{(BR)R}$	75	V	IR = 2.5uA
Maximum Forward Voltage	V_F	1000	mV	IF = 10mA
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	2.5 50 30	uA	VR = 70V VR = 70V, T _J = 150°C VR = 25V, T _J = 150°C
Typical Junction Capacitance	C_J	4	pF	V _F = V _R = 0, f = 1MHz
Reverse Recovery Time	T _{rr}	4	ns	I _F = 10mA to I _R = 1mA, V _R = 6V, R _L = 100

Note :

(1) Unit mounted with 0.2*0.2”(5.0*5.0mm) copper pad areas

REV. 0, Feb-2009, KSYE03

FIG.1- FORWARD CURRENT DERATING CURVE

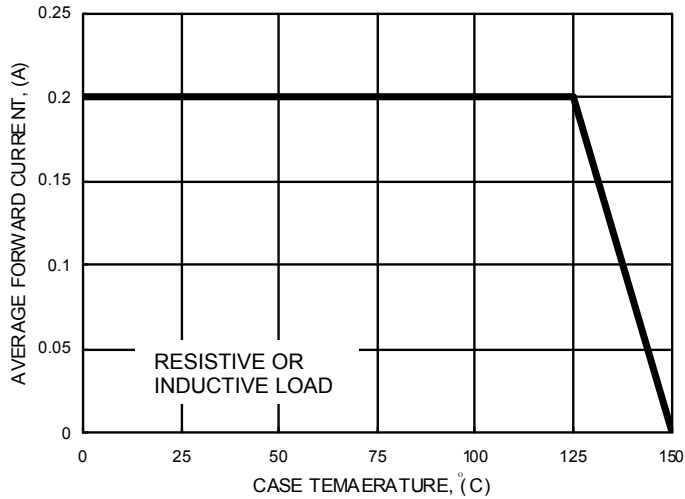


FIG.2- TYPICAL JUNCTION CAPACITANCE

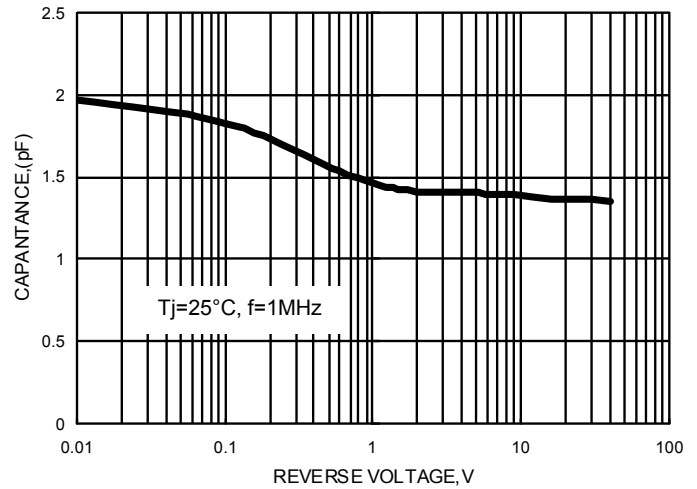


FIG.3- TYPICAL FORWARD CHARACTERISTICS

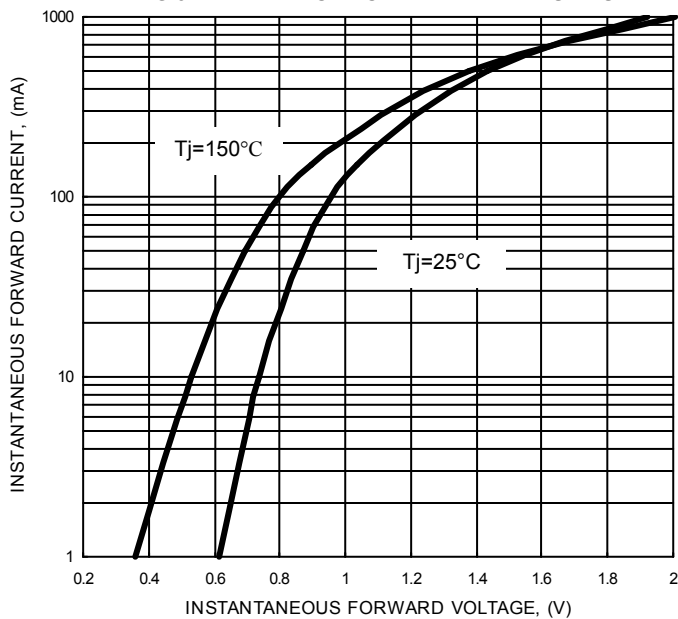


FIG.4- TYPICAL REVERSE CHARACTERISTICS

