RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

BAW56

SURFACE MOUNT, DUAL 1N4148 COMMON ANODE DIODE

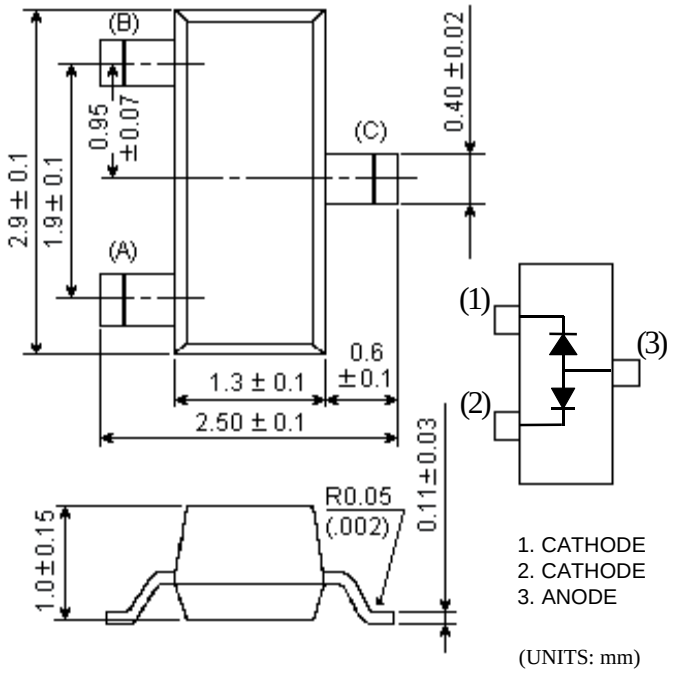
Absolute Maximum Ratings (Ta=25◦C)

Items	Symbol	Ratings	Unit
Reverse Voltage	VRRM	85	V
Reverse Recovery Time	trr	4	ns
Forward Voltage @ If = 50 mA	VF	1.0	V
Forward Current	IF	215	mA
Junction Temp.	Tj	-55 to 150	◦C
Storage Temp.	Tstg	-55 to 150	◦C

Mechanical Data

Items	Materials
Package	SOT-23
Lead Frame	42 Alloy
Lead Finish	Solder Plating
Bond Wire	Au
Mold Resin	Epoxy
Chip	Silicon

SOT-23



Electrical Characteristics per Diode (Ta=25◦C)

Ratings	Symbol	Ratings	Unit
Reverse Breakdown Voltage IR= 100uA	VBR	75	V
Repetitive Peak Reverse Voltage	VRRM	85	V
Repetitive Peak Forward Current	IFRM	450	mA
Forward Voltage IF= 1mA IF= 10mA IF= 50mA IF= 150mA	VF	 715 855 1000 1250	mV
Reverse Current VR= 75V VR= 25V (Tj= 150◦C) VR= 75V (Tj= 150◦C)	IR	 1.0 30 50	uA
Junction Capacitance VR = 0 V, f = 1MHz	Cj	2.0	pF
Reverse Recovery Time IF= IR= 10mA; RL= 100 ohms	trr	4	ns
Thermal Resistance (junction to ambient)	$R_{\Theta}JA$	500	◦C/W

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MAXIMUM RATINGS (at TA = 25°C unless otherwise noted)

PARAMETER	SYMBOL	CONDITIONS	Max	UNITS
Continuous Forward Current	I_F	single diode loaded (note 1)	215	mA
		double diode loaded (note 1)	125	
Non-repelitive Peak Forward Current	I_{FSM}	square wave,Tj=25°C prior to surge		
		t=1us	4	Amps
		t=1ms	1	Amps
		t=1s	0.5	Amps
Total Power Dissipation	P_{LOT}	T_{amb}= 25°C	250	mW

Note: 1.Device mounted on an FR4 printed-circuit board.

RATING AND CHARACTERISTIC CURVES (BAW56)

FIG. 1 - Maximum permissible continuous forward current as a function of ambient temperature

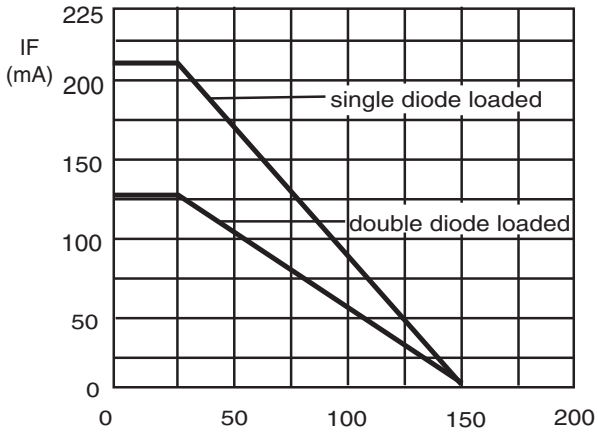

FIG. 2 - Forward current as a function of forward voltage

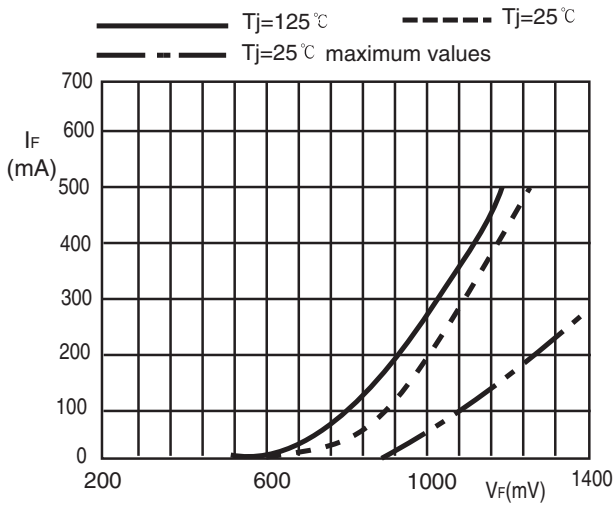

FIG. 3 - Maximum permissible non-repetitive peak forward current as a function of pulse duration

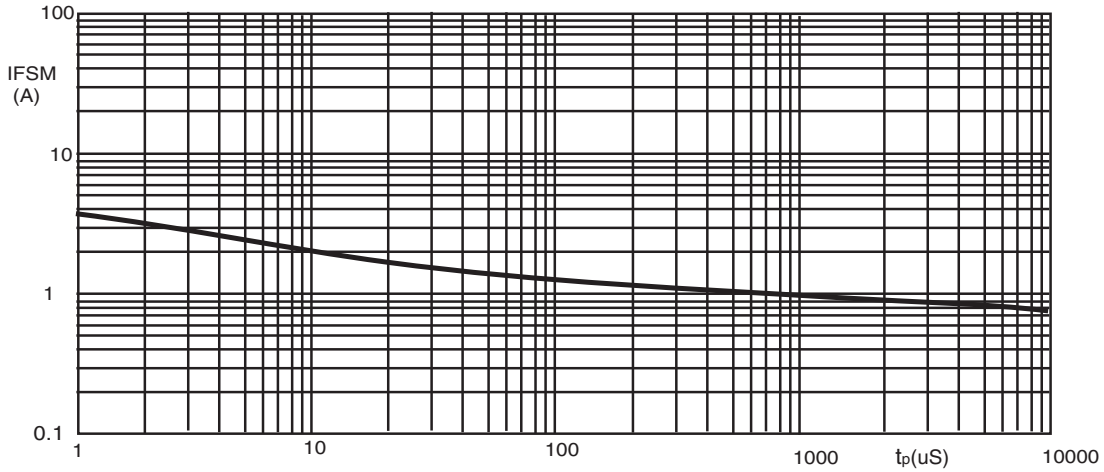

FIG. 4 - Reverse current as a function of junction temperature

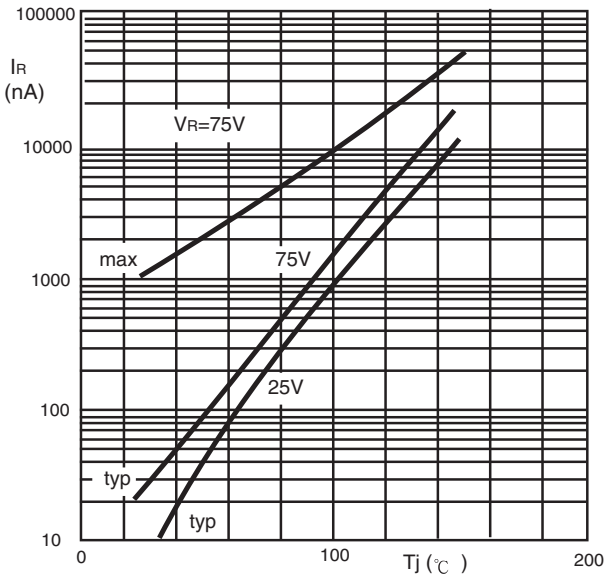

FIG. 5 - Diode capacitance as a function of reverse voltage ; typical values