



ABS210

VOLTAGE RANGE

1000 Volts

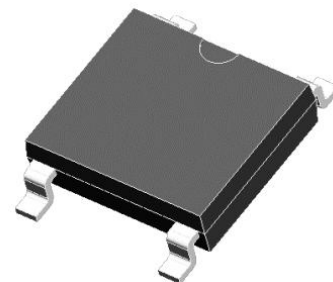
CURRENT

2.0 Ampere

Features

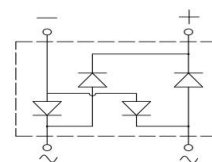
- Glass passivated chip
- Low forward voltage drop
- Low leakage current
- High forward surge capability
- High temperature soldering: 260°C/10S at terminals
- Component in accordance to ROHS 2002/95/1 and WEEE 2002/96/EC

ABS



Mechanical Data

- Case: Molded plastic body
- Molding compound meets UL 94 V-0 flammability rating, Halogen-free, RoHS-compliant, and commercial grade
- Polarity: Molded on body
- Weight: 0.003 ounce, 0.10 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 derate current by 20%

TYPE NUMBER	SYMBOLS	ABS210	UNITS
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1000	Volts
Maximum RMS Voltage	V_{RMS}	700	Volts
Maximum DC Blocking Voltage	V_{DC}	1000	Volts
Maximum Average Forward Rectified Current $T_L=125^\circ\text{C}$	$I_{(AV)}$	2.0	Amp
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	I_{FSM}	60	Amps
Peak Forward Surge Current 1.0mS single half sine wave superimposed on rated load (JEDEC method)	I_{FSM}	180	Amps
Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	7.2	A^2s
Maximum Instantaneous Forward Voltage @ 2.0A	V_F	1.1	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A = 25^\circ\text{C}$	5.0	μA
	$T_A = 125^\circ\text{C}$	100	
Typical Junction Capacitance ^(Note 1)	C_j	30	pF
Typical Thermal Resistance ^(Note 2)	$R_{\theta JA}$	26	$^\circ\text{C}/\text{W}$
	$R_{\theta JL}$	65	
Operating Junction Temperature	T_j	-55 to +175	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +175	$^\circ\text{C}$

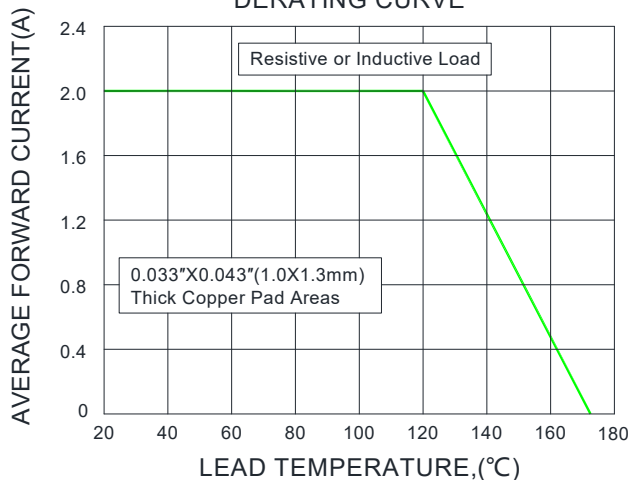
Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.
2. Thermal Resistance test performed in accordance with JESD-51. Unit mounted on 15mm*12mm*1.6mm AL pad attach 195mm*110mm*10mm steel plate.
3. The typical data above is for reference only.

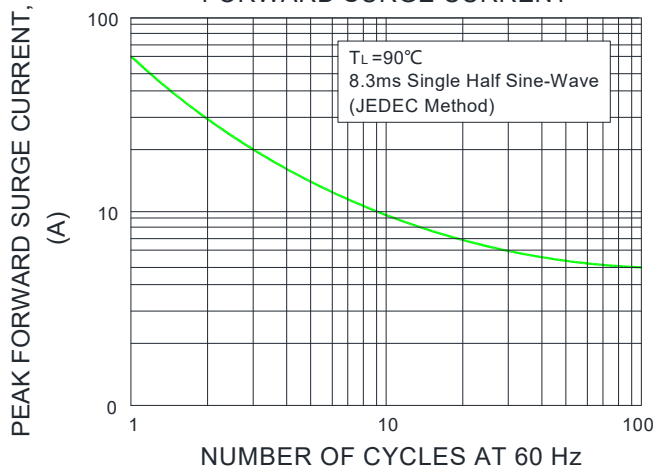


Ratings and Characteristic Curves ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

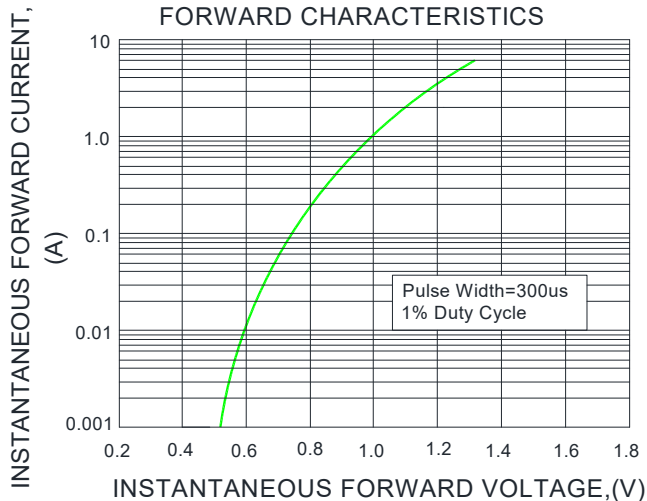
F1G.1-FORWARD CURRENT DERATING CURVE



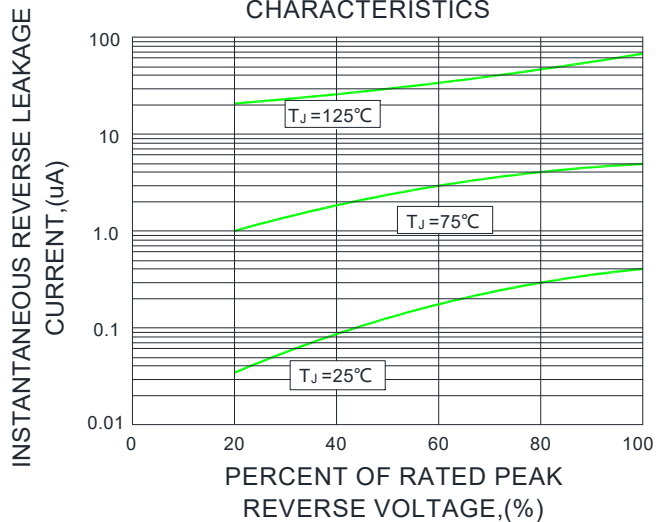
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



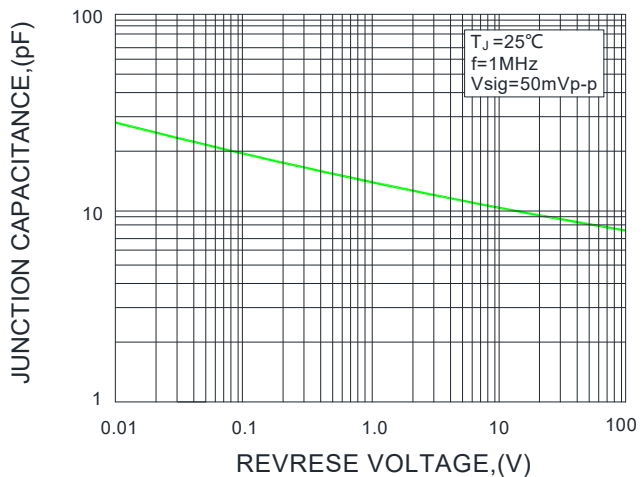
F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4-TYPICAL REVERSE CHARACTERISTICS



F1G.5-TYPICAL JUNCTION CAPACITANCE

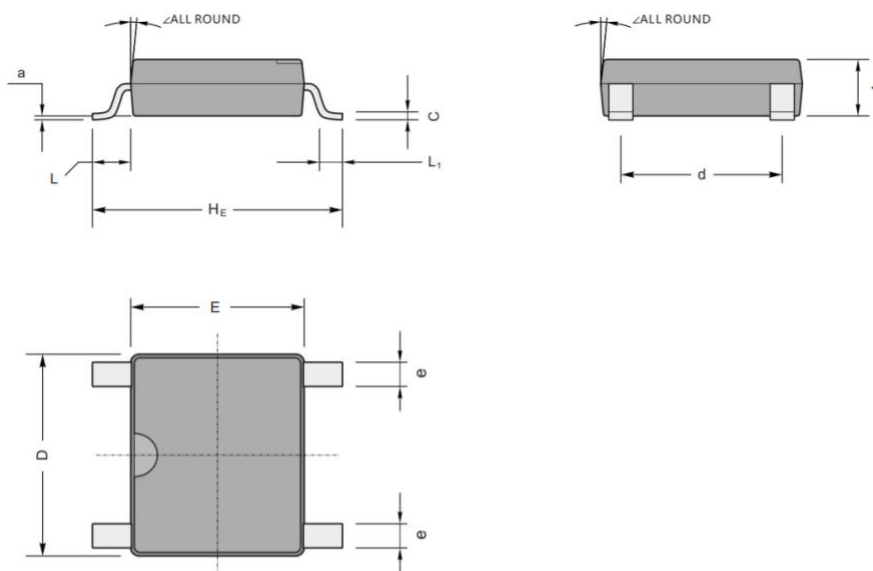




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CURRENT 2.0 Ampere

Package Outline Dimensions in inches (millimeters)



UNIT		A	C	D	E	HE	d	e	L	L1	a	∠
mm	max	1.5	0.25	5.2	4.5	6.5	4.2	0.7	0.95	0.6	0.2	7°
	min	1.3	0.15	4.9	4.2	6.0	3.8	0.5				
mil	max	59	8.7	205	177	256	165	28	37	24	8	
	min	51	5.9	193	166	236	150	20				



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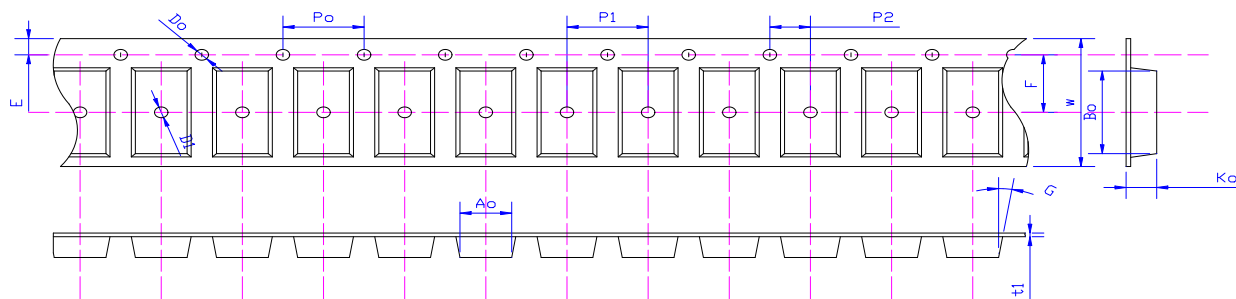
1000 Volts

CURRENT

2.0 Ampere

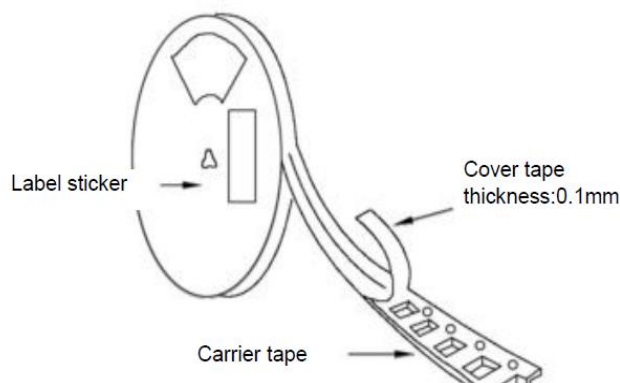
Packing Requirments

- PS black anti-static carrier tape packing



Specifications	A_o	B_o	K_o	P_o	W	t_1
ABS	5.31 ± 0.10	6.68 ± 0.10	1.59 ± 0.10	4.00 ± 0.1	12.0 ± 0.10	0.30 ± 0.02

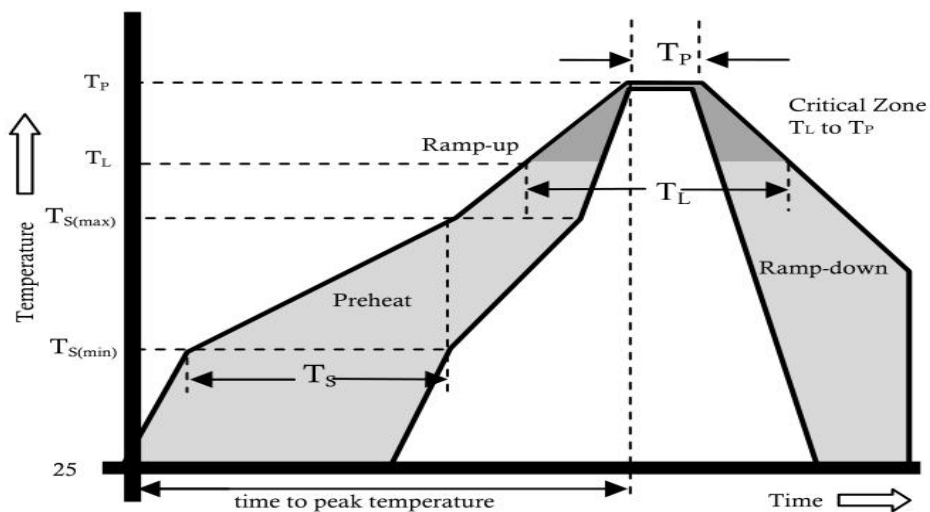
- 13 "antistatic plastic reel



DEVICE TYPE	13" Reel			
	Q'TY/REEL(pcs)	REEL/BOX	BOX/CARTOON	Q'TY/CARTON(pcs)
ABS	5000	2	8	80000



Reflow Profile



Reflow Condition		Pb-Free Assembly
Pre Heat	Temperature Min.	+150°C
	Temperature Max.	+200°C
	Time(Min to Max)	60-180 secs.
Average ramp up rate(Liquidus Temp(T_L) to peak)		3°C/sec. Max.
$T_S(max)$ to T_L - Ramp-up Rate		3°C/sec. Max.
Reflow	Temperature (T_L)(Liquidus)	+217°C
	Temperature (T_L)	60-150 secs.
Peak Temp (T_P)		+(260+0/-5)°C
Time within 5°C of actual Peak Temp (T_P)		25 secs.
Ramp-down Rate		6°C/sec. Max.
Time 25°C to peak Temp (T_P)		8 min. Max.
Do not exceed		+260°C



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Disclaimer

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