



## ABS01 THRU ABS10

VOLTAGE RANGE

100 to 1000 Volts

CURRENT

1.0 Ampere

## Features

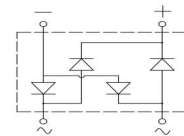
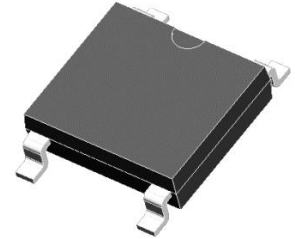
- Glass passivated chip junction
- Ideal for surface mounted applications
- Low leakage
- High forward surge current capability
- High temperature soldering guaranteed:260°C/10 seconds at terminals

ABS



## Mechanical Data

- Case: Molded plastic body
- Epoxy: UL94V-0 rate flame retardant
- Polarity: Molded on body
- LeadP: Plated terminals solderable per MIL-STD-202E method 208C
- 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	ABS01	ABS02	ABS04	ABS06	ABS08	ABS10	UNIT
Maximum Reverse Peak Repetitive Voltage	$V_{RRM}$	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	$V_{RMS}$	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	$V_{DC}$	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Output Current, 0.06" (1.5mm) lead length at $T_L=100^\circ\text{C}$	$I_{(AV)}$	1.0						Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30						Amps
Peak Forward Surge Current 1.0ms single half sine wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	80						
Rating for Fusing ( $t < 8.3\text{ms}$ )	$I^2t$	3.7						$\text{A}^2\text{s}$
Maximum Instantaneous Forward Voltage drop Per Bridge element 1.0A	$V_F$	1.1						Volts
Maximum Reverse Current at rated DC blocking voltage per element	TA=25°C	5						$\mu\text{Amps}$
	TA=125°C	50						
Typical Junction Capacitance <sup>(NOTE 1)</sup>	$C_j$	25						pF
Typical Thermal Resistance <sup>(NOTE 2)</sup>	$R_{\theta JA}$	70						$^\circ\text{C}/\text{W}$
Operating and Storage Temperature Range	$T_J, T_{STG}$	(-55 to +150)						$^\circ\text{C}$

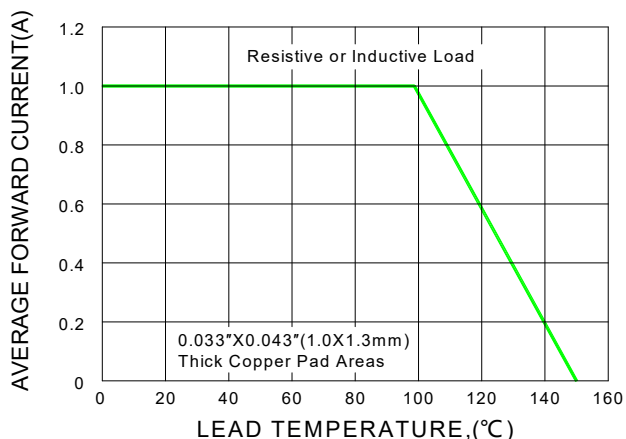
Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.
2. Unit mounted on P.C.B. with 0.033"×0.043"(1.00mm×1.30mm) copper pads.

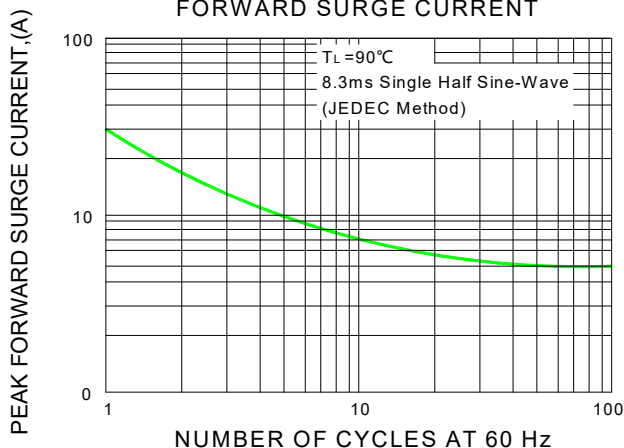


Ratings and Characteristic Curves ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

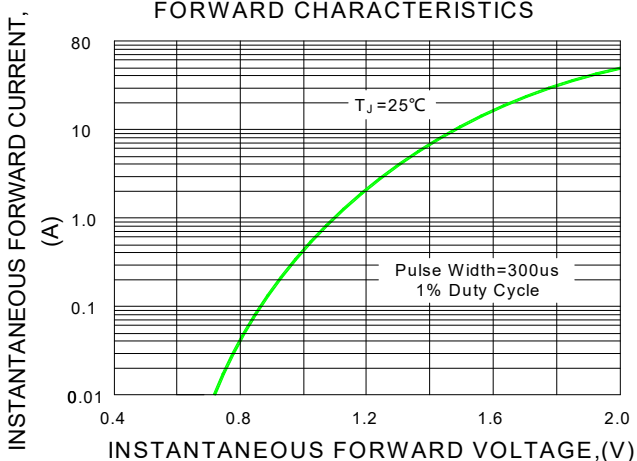
F1G.1-FORWARD CURRENT DERATING CURVE



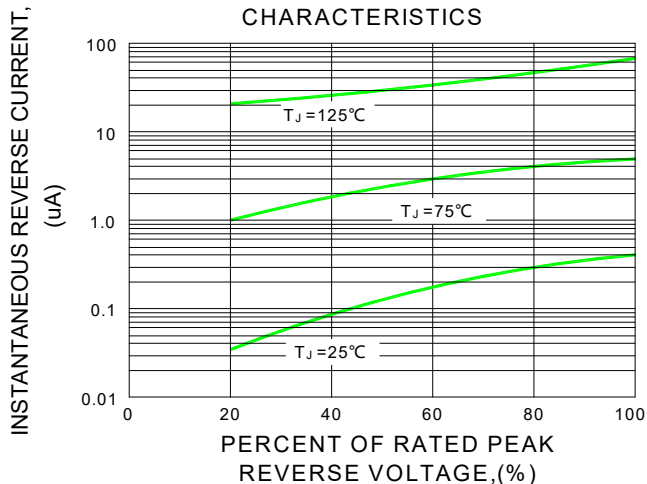
F1G.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



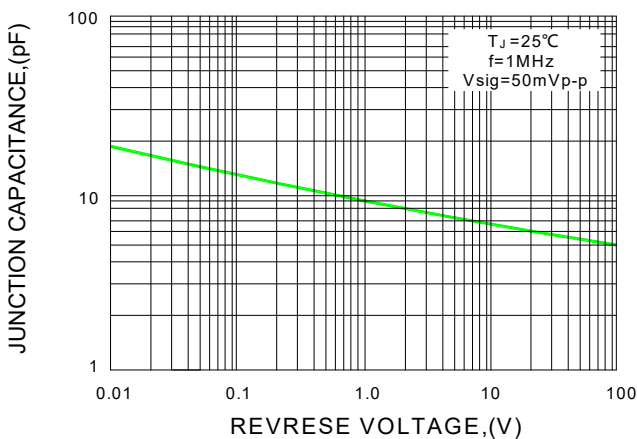
F1G.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



F1G.4-TYPICAL REVERSE CHARACTERISTICS



F1G.5-TYPICAL JUNCTION CAPACITANCE



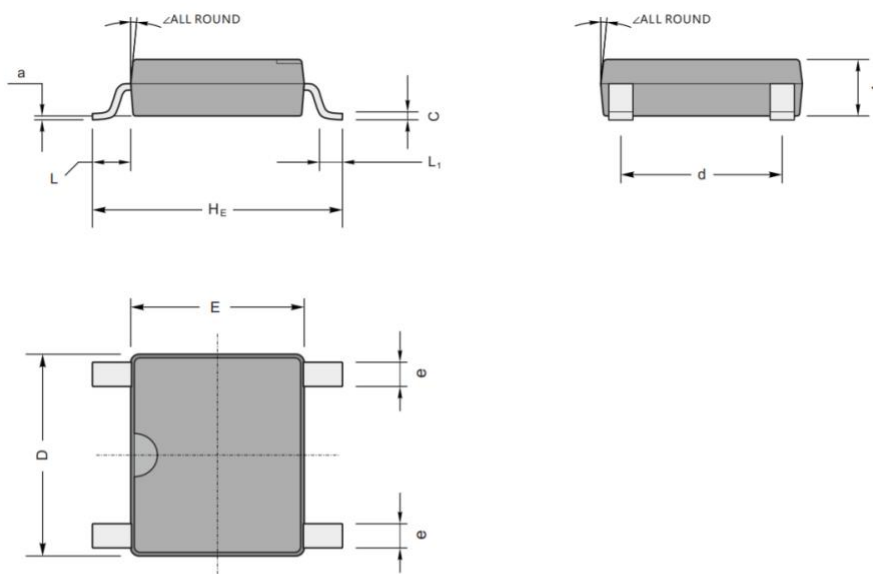


# Surface mounted rectifier bridge reactor

ABS01 THRU ABS10

VOLTAGE RANGE 100 to 1000 Volts  
CURRENT 1.0 Ampere

Package Outline Dimensions in inches (millimeters)



UNIT		A	C	D	E	HE	d	e	L	L <sub>1</sub>	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				



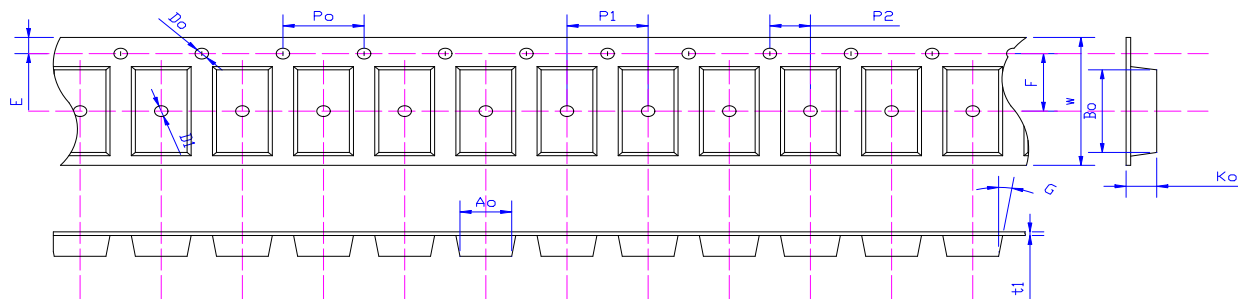
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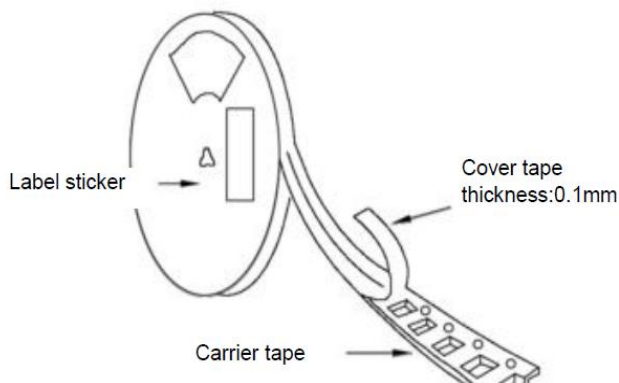
## Packing Requirments

- PS black anti-static carrier tape packing



Specifications	Ao	Bo	Ko	Po	W	t1
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

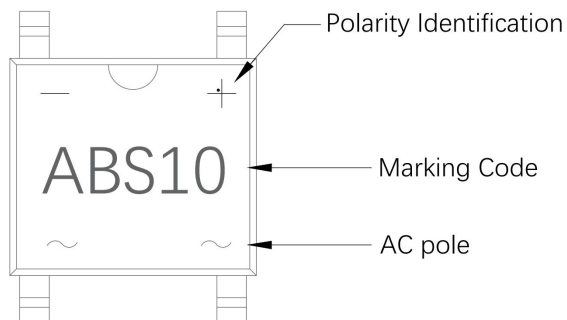


# Surface mounted rectifier bridge reactor

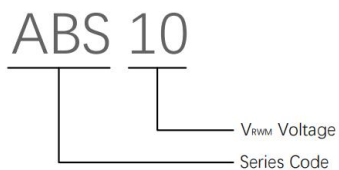
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## Marking Code

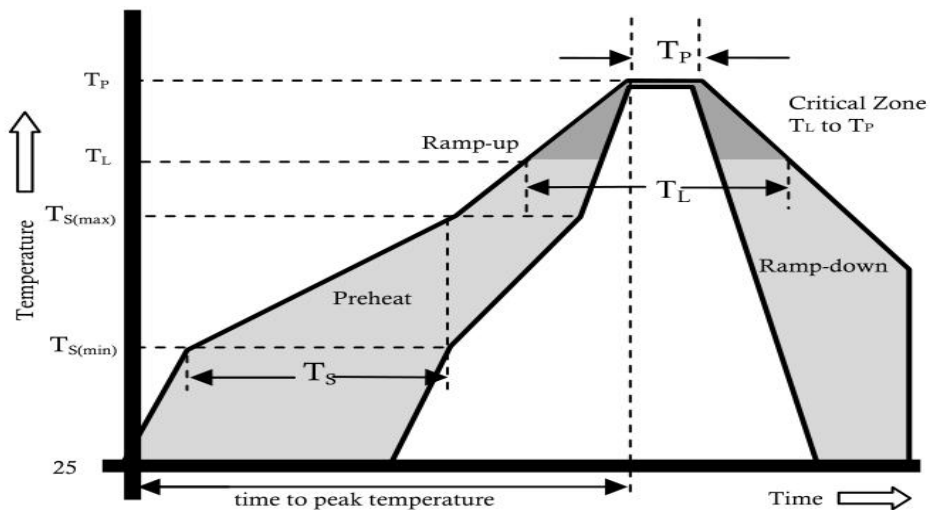


## Part Number Code





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 ( $T_I$ )	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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