

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

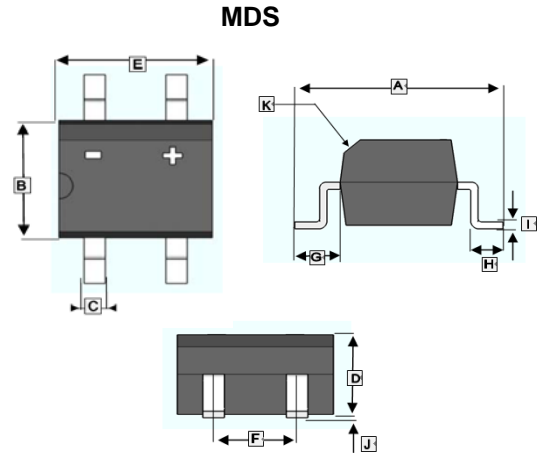
- Plastic material has UL flammability classification 94V-0
- High surge current capability
- Saves space on printed circuit boards
- Glass passivated structure

MECHANICAL DATA

- Case: Molded plastic body over passivated junctions
- Polarity: As marked on body
- Mounting position: Any

PACKAGE INFORMATION

Package	MPQ	Leader Size
MDS	2.5K	13 inch



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	-	7.0	G	1.3	1.7
B	3.6	4.2	H	0.7	1.1
C	0.5	0.8	I	0.1	0.35
D	2.3	2.7	J	0.2(TYP.)	
E	4.5	4.9	K	0.5*15(TYP.)	
F	2.3	2.7			

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, de-rate current by 20%.)

Parameter	Symbol	Part Number						Unit
		MD102S	MD103S	MD104S	MD105S	MD106S	MD107S	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	100	200	400	600	800	1000	V
Maximum Average Forward Current	On glass-epoxy P.C.B. ¹	0.8						A
	On aluminum substrate ²	1						
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	40						A
Maximum instantaneous forward voltage @ 0.4A per leg ³	V_F	1.05						V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^\circ\text{C}$	10						μA
	$T_A=125^\circ\text{C}$	150						
Rating for fusing, $1\text{ms} \leq t \leq 8.3\text{ms}$	I_T^2	6.6						A^2s
Thermal resistance junction to ambient ⁴	$R_{\theta JA}$	85						$^\circ\text{C/W}$
Thermal resistance junction to lead ⁴	$R_{\theta JL}$	20						$^\circ\text{C/W}$
Operating and Storage Temperature range	T_J, T_{STG}	-55~150						$^\circ\text{C}$

Note:

1. On glass epoxy P.C.B. mounted on 0.05x0.05"(1.3x1.3mm) pads
2. On aluminum substrate P.C.B. with area of 0.8"x0.8"(20x20mm) mounted on 0.05X0.05"(1.3X1.3mm) solder pad
3. Pulse test with PW=300us, 1% duty cycle.
4. Thermal resistance from junction to ambient and junction to lead mounted on P.C.B. with 0.2X0.2"(5X5mm) copper pads

RATINGS AND CHARACTERISTIC CURVES

