

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

FEATURES

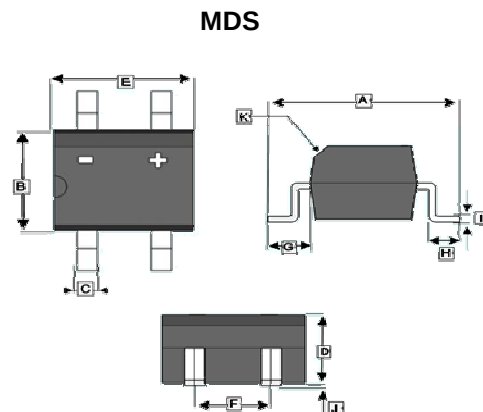
- Plastic material has UL flammability classification 94V-0
- High surge current capability
- Saves space on printed circuit boards
- Glass passivated structure

MECHANICAL DATA

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

PACKAGE INFORMATION

Package	MPQ	Leader Size
MDS	3K	13 inch



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	-	7.0	G	1.3	1.7
B	3.5	4.2	H	0.48	1.1
C	0.4	0.8	I	0.1	0.45
D	2.3	2.7	J	0.2(TYP.)	
E	4.5	5.0	K	0.5*15	
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	
			MD1S	MD2S	MD3S	MD4S	MD5S	MD6S		MD7S
Maximum Recurrent Peak Reverse Voltage		V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage		V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage		V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Current	On glass-epoxy P.C.B.	I _{F(AV)}	0.5						A	
	On aluminum substrate		0.8							
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)		I _{FSM}	30						A	
Maximum instantaneous forward voltage @ 0.4A per leg		V _F	1						V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _A =25℃	I _R	5						μA	
	T _A =125℃		500							
Rating for fusing, 1ms≤t≤8.3ms		I ² _T	5						A ² _S	
Thermal resistance junction to ambient ¹		R _{θJA}	85						℃/W	
Thermal resistance junction to Case ¹		R _{θJC}	22						℃/W	
Thermal resistance junction to lead ¹		R _{θJL}	20						℃/W	
Operating and Storage Temperature range		T _J , T _{STG}	-55~150						℃	

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

RATINGS AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

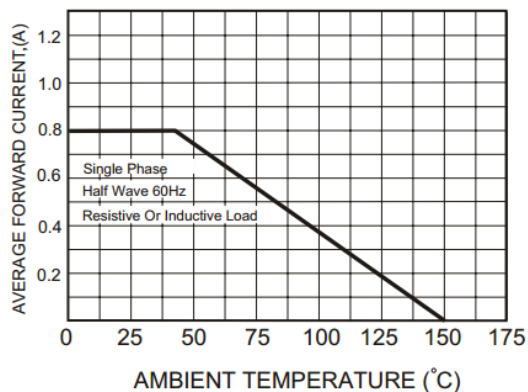


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

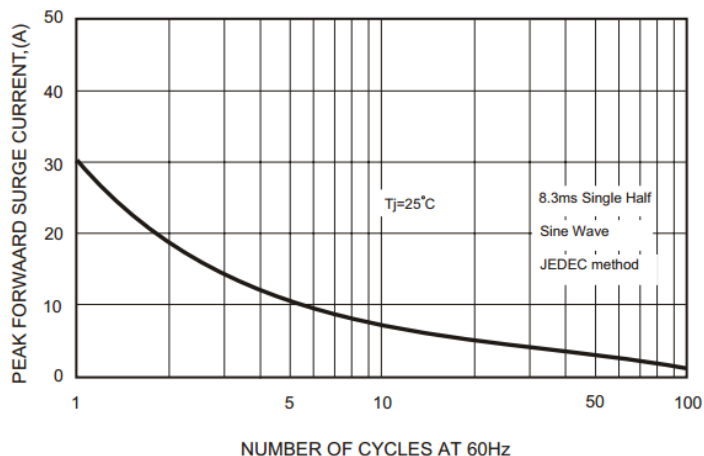


FIG.3-TYPICAL FORWARD CHARACTERISTICS

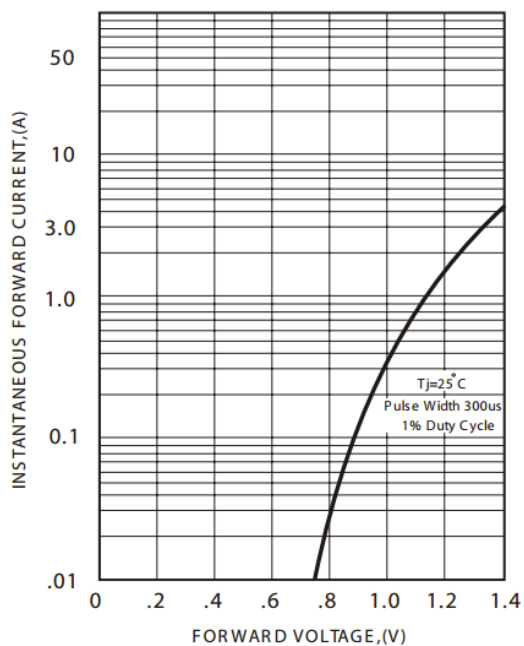


FIG.4-TYPICAL REVERSE CHARACTERISTICS

