

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

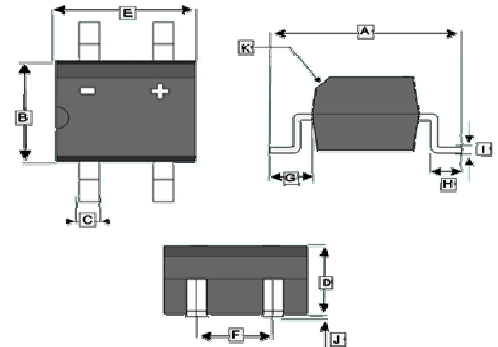
MECHANICAL DATA

- 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

MDS



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
		MD 151S	MD 152S	MD 153S	MD 154S	MD 155S	MD 156S	MD 157S	
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.	$I_{F(AV)}$	1.5							A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	50							A
Maximum instantaneous forward voltage @ 1.5A per leg	V_F	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^\circ\text{C}$	5							μA
	$T_A=125^\circ\text{C}$	100							
Rating for fusing, $t \leq 8.3\text{ms}$	I_T^2	10							A^2s
Typical junction capacitance per at 4.0V, 1.0MHz	C_J	25							pF
Thermal resistance junction to ambient ¹	$R_{\theta JA}$	85							$^\circ\text{C/W}$
Thermal resistance junction to lead ¹	$R_{\theta JL}$	25							$^\circ\text{C/W}$
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

RATINGS AND CHARACTERISTIC CURVES

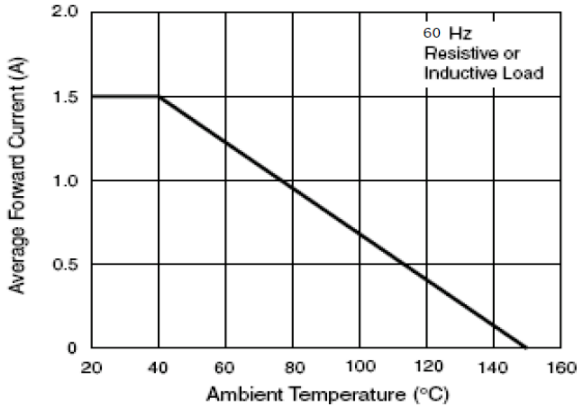


Figure 1. Forward Current Derating Curve Per Diode

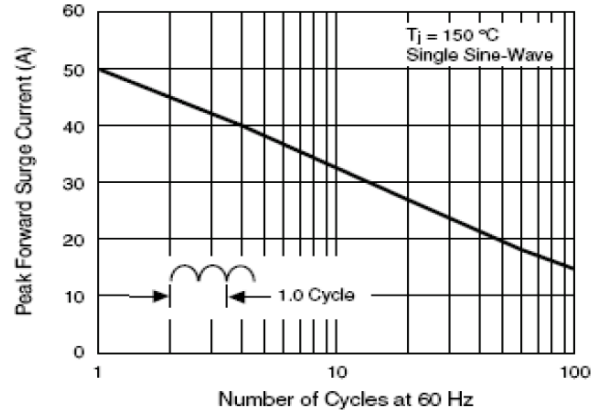


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current Per Diode

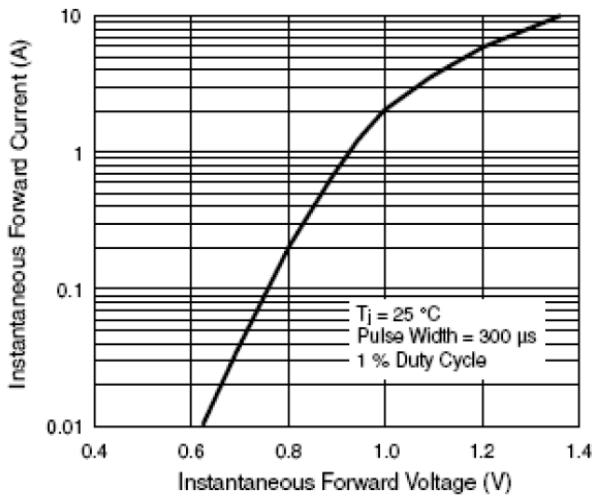


Figure 3. Typical Forward Characteristics Per Diode

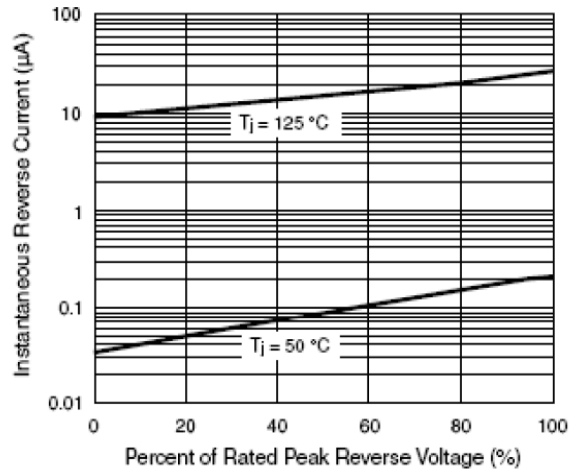


Figure 4. Typical Reverse Leakage Characteristics Per Diode

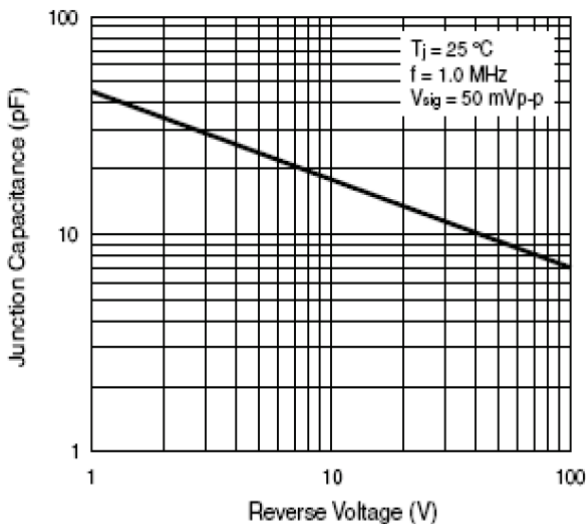


Figure 5. Typical Junction Capacitance Per Diode