

**SURFACE MOUNT
SCHOTTKY BARRIER RECTIFIERS**

**REVERSE VOLTAGE - 50 to 1000 Volts
FORWARD CURRENT- 1.0 Ampere**

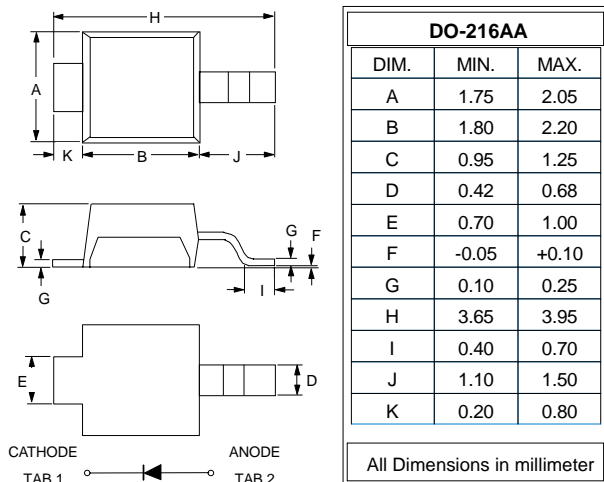
FEATURES

- For surface mounted applications
- Metal-Semiconductor junction with guarding
- Epitaxial construction
- Low VF provides higher efficiency and extends battery life
- Plastic material has UL flammability classification 94V-0
- For use in portable and battery powered product
- Typical applications are ac/ac and dc/dc converters, reverse battery protection, and "Oring" of multiple supply voltage

MECHANICAL DATA

- Case : JEDEC DO-216AA Molded plastic
- Polarity : Cathode designated by TAB 1
- Approx Weight : 0.016grams
- Mounting position : Any

DO-216AA



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%.

Characteristics	Symbol	MB140		Units
Maximum recurrent peak reverse voltage	V _{rrm}	40		V
Maximum RMS voltage	V _{rms}	28		V
Maximum DC blocking voltage	V _{DC}	40		V
Maximum average forward rectified current @ T _L =110°C	I _(AV)	1.0		A
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 (Note 1) (@ I _F =0.1A) (@ I _F =1.0A) (@ I _F =3.0A)	V _F	@ T _J = 25°C	@ T _J = 85°C	V
		0.36	0.30	
		0.55 0.85	0.515 0.88	
Maximum instantaneous reverse current (@ V _R =40V) (@ V _R =20V)	I _R	@ T _J = 25°C	@ T _J = 85°C	mA
		0.5	25	
		0.15	18	
Thermal resistance - Junction to Lead (Anode)	R _{tjl}	35		°C/W
Thermal resistance - Junction to Tab (Cathode)	R _{ttab}	20		
Thermal resistance - Junction to Ambient	R _{tja}	250		
Operating Temperature Range	T _J	-55 to +125		°C
Storage Temperature Range	T _{STG}	-55 to +150		°C

NOTE: 1.Pulse Test: Pulse Width = 300us , Duty Cycle = 2%

Fig.1 - Forward Current Derating Curve

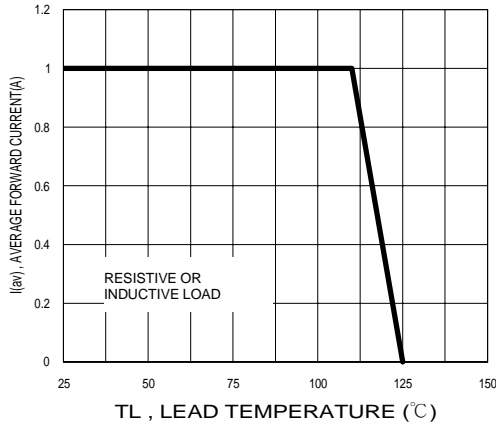


Fig.2 - Typical Reverse Characteristics

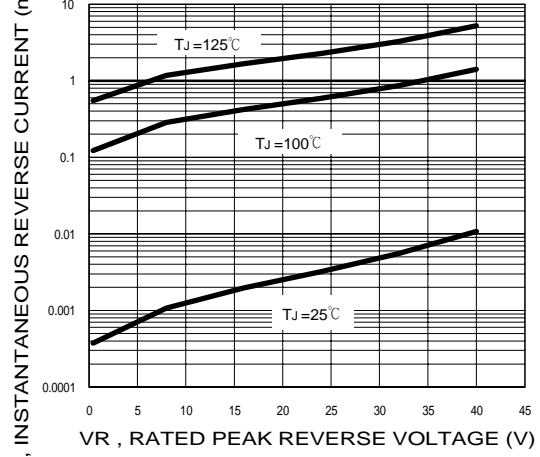


Fig.3 - Maxmun Non-Repetitive Peak Forward Surge Current

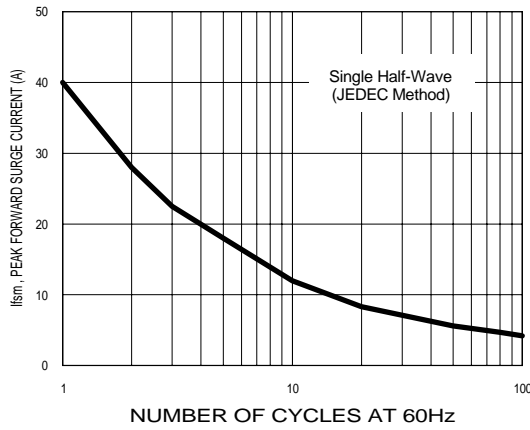


Fig.4 - Typical Junction Capacitance

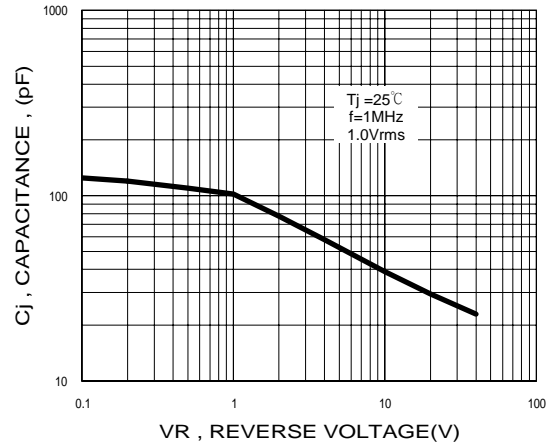
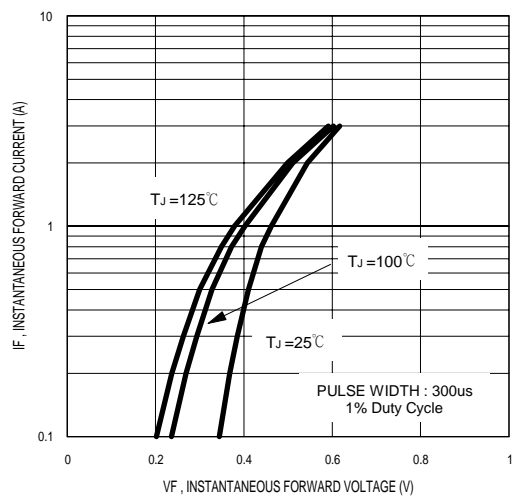


Fig.5 - Typical Forward Characteristics



FOOTPRINTS FOR SOLDERING

