

**SURFACE MOUNT  
SCHOTTKY BARRIER RECTIFIERS**

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

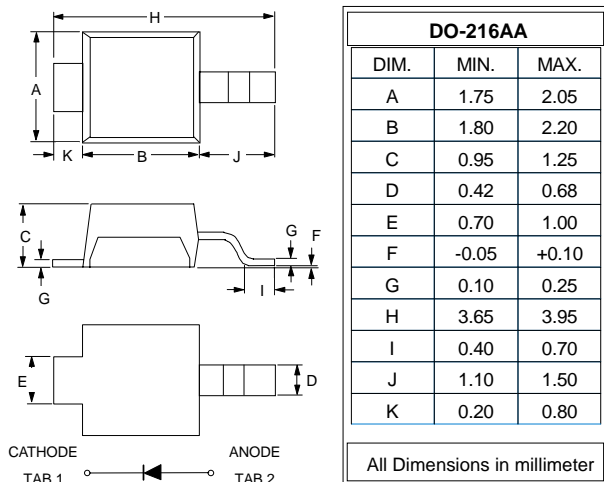
**FEATURES**

- 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**

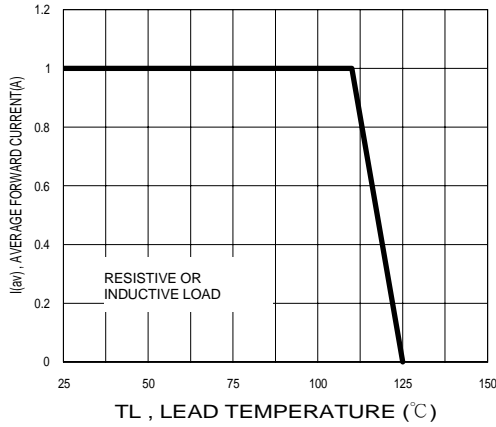
Ratings at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

Characteristics	Symbol	MB140		Units
Maximum recurrent peak reverse voltage	V <sub>rrm</sub>	40		V
Maximum RMS voltage	V <sub>rms</sub>	28		V
Maximum DC blocking voltage	V <sub>DC</sub>	40		V
Maximum average forward rectified current @ T <sub>L</sub> =110°C	I <sub>(AV)</sub>	1.0		A
Peak forward surge current 8.3 ms single half-sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	40		A
Maximum instantaneous forward voltage (Note 1) ( @ I <sub>F</sub> =0.1A ) ( @ I <sub>F</sub> =1.0A ) ( @ I <sub>F</sub> =3.0A )	V <sub>F</sub>	@ T <sub>J</sub> = 25°C	@ T <sub>J</sub> = 85°C	V
		0.36	0.30	
		0.55 0.85	0.515 0.88	
Maximum instantaneous reverse current ( @ V <sub>R</sub> =40V ) ( @ V <sub>R</sub> =20V )	I <sub>R</sub>	@ T <sub>J</sub> = 25°C	@ T <sub>J</sub> = 85°C	mA
		0.5	25	
		0.15	18	
Thermal resistance - Junction to Lead (Anode)	R <sub>tjl</sub>	35		°C/W
Thermal resistance - Junction to Tab (Cathode)	R <sub>ttab</sub>	20		
Thermal resistance - Junction to Ambient	R <sub>tja</sub>	250		
Operating Temperature Range	T <sub>J</sub>	-55 to +125		°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150		°C

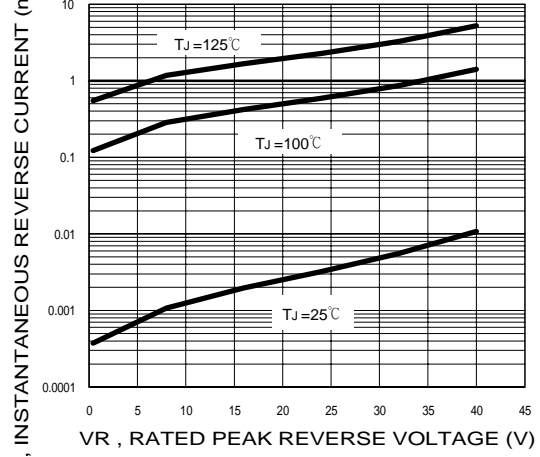
NOTE: 1.Pulse Test: Pulse Width = 300us , Duty Cycle = 2%

REV. 0, 26-Dec-2001, KSHPO1

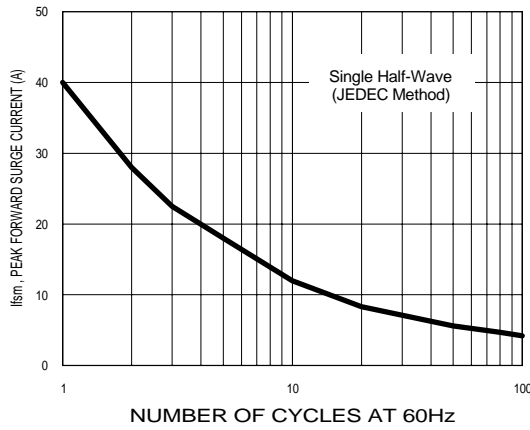
**Fig.1 - Forward Current Derating Curve**



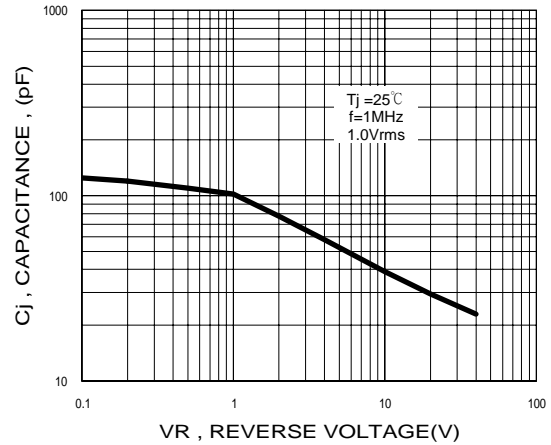
**Fig.2 - Typical Reverse Characteristics**



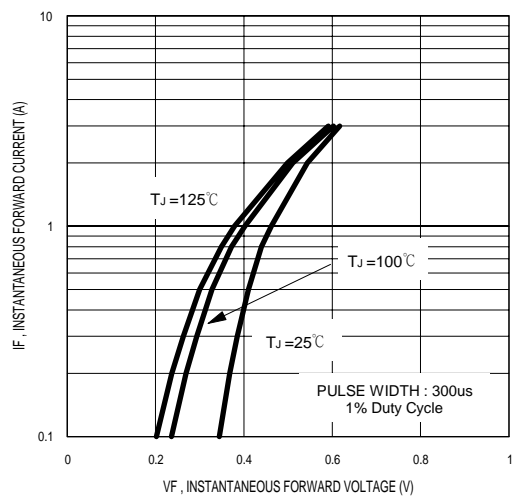
**Fig.3 - Maxmun Non-Repetitive Peak Forward Surge Current**



**Fig.4 - Typical Junction Capacitance**



**Fig.5 - Typical Forward Characteristics**



**FOOTPRINTS FOR SOLDERING**

