

## 30A LOW V<sub>F</sub> TRENCH MOS SCHOTTKY RECTIFIERS

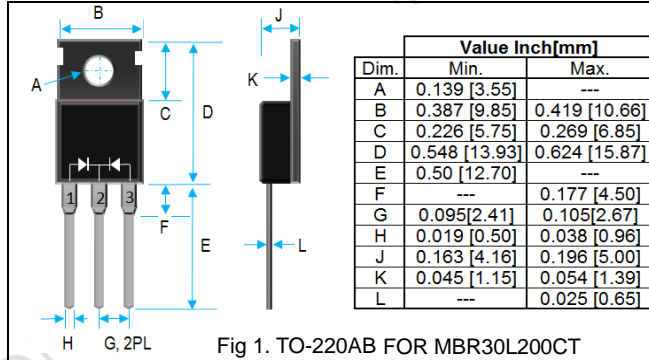


Fig 1. TO-220AB FOR MBR30L200CT

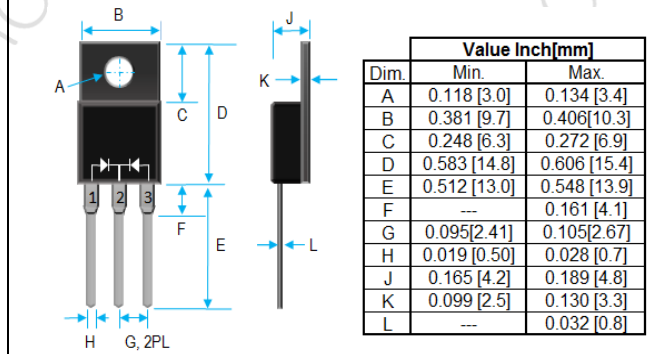


Fig 2. ITO-220AB FOR MBR30L200FCT

### PRODUCT FEATURES

1. FLAMMABILITY CLASSIFICATION 94V-0
2. EXTREMELY LOW V<sub>F</sub>
3. TRENCH MOS SCHOTTKY TECHNOLOGY
4. LOW POWER LOSS / HIGH EFFICIENCY
5. HIGH FREQUENCY OPERATION
6. CASE: TRANSFER MOLDED  
TO-220AB FOR MBR30L200CT  
ITO-220AB FOR MBR30L200FCT
7. DIMENSIONS IN INCHES AND (MILLIMETERS)
8. LEADS: SOLDERABILITY PER MIL-STD-202 METHOD 208
9. WEIGHT: 2.15 GRAMS (TO-220AB)  
1.55GRAMS (ITO-220AB)
10. RoHS/HALOGEN FREE

## ELECTRICAL CHARACTERISTICS

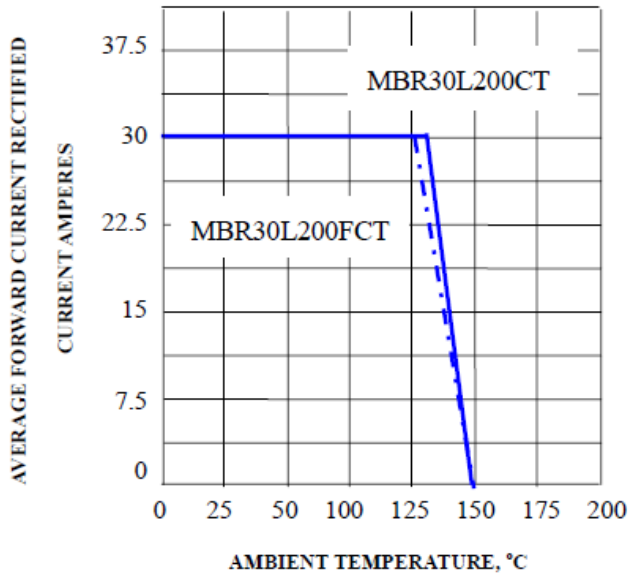
### MAXIMUM RATINGS (T<sub>A</sub> =25°C UNLESS OTHERWISE NOTED ) AND ELECTRICAL CHARACTERISTICS

RATING	SYMBOL		UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V <sub>RRM</sub>	200	VDC
MAXIMUM RMS VOLTAGE	V <sub>RMS</sub>	140	VAC
MAXIMUM DC BLOCKING VOLTAGE	V <sub>DC</sub>	200	VDC
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT SEE FIG.1	I <sub>O</sub>	30 (PER DEVICE) 15 (PER LEG)	A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD PER LEG	I <sub>FSM</sub>	250	A
STORAGE TEMPERATURE RANGE	T <sub>STG</sub>	- 55 TO +175	°C
OPERATING TEMPERATURE RANGE	T <sub>J</sub>	- 55 TO +150	°C
MAXIMUM FORWARD VOLTAGE AT I <sub>F</sub> = 15A T <sub>J</sub> = 25°C T <sub>J</sub> =125°C	V <sub>F</sub>	0.92	V
TYPICAL FORWARD VOLTAGE I <sub>F</sub> = 30A T <sub>J</sub> = 25°C T <sub>J</sub> =125°C		0.80	
		1.05	
		0.93	
MAXIMUM REVERSE CURRENT AT 25°C, PER LEG (NOTE 1)	I <sub>R</sub>	0.01	mA
MAXIMUM REVERSE CURRENT AT 125°C, PER LEG (NOTE 1)	I <sub>R</sub>	10	mA
TYPICAL THERMAL RESISTANCE JUNCTION TO CASE PER LEG	R <sub>θjc</sub>	MBR30L200CT: 2.2 MBR30L200FCT: 4.0	°C/W
ISOLATION VOLTAGE FROM TERMINAL TO HEATSINK T=1MIN		1500 (FOR MBR30L200FCT)	VAC

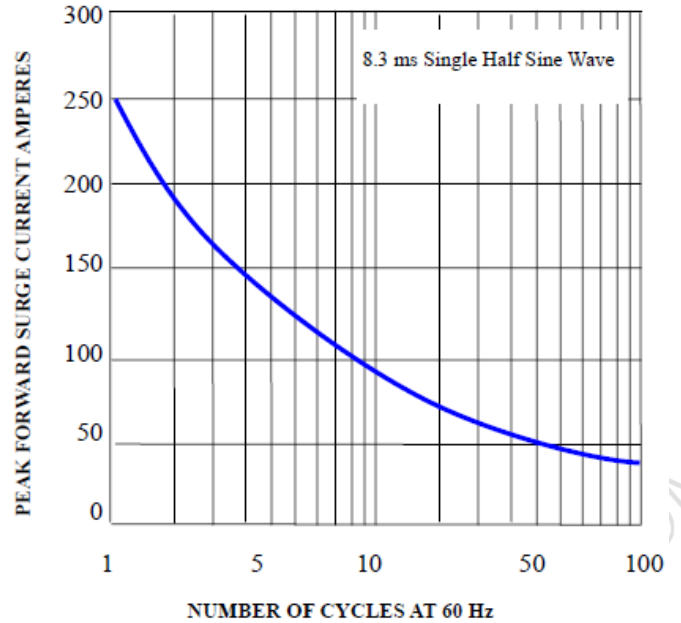
NOTE : 1. PULSE TEST: 300μs PULSE WIDTH, 1% DUTY CYCLE.

## RATINGS AND CHARACTERISTIC CURVES

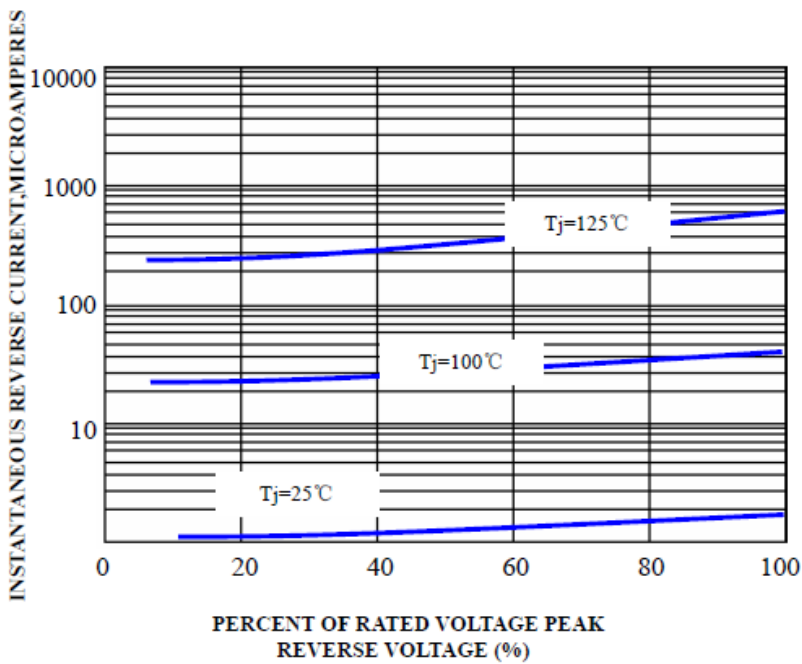
**FIG. 1-FORWARD CURRENT DERATING CURVE**



**FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE RATING**



**FIG. 3- TYPICAL REVERSE CHARACTERISTICS**



**FIG. 4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**

