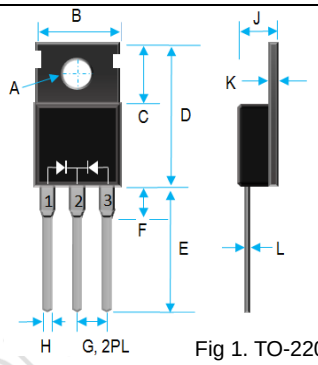
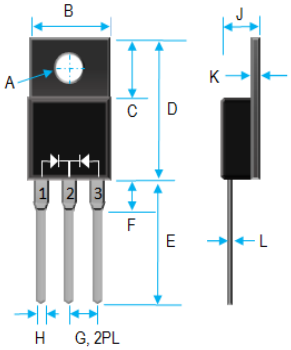
30A LOW V_F TRENCH MOS SCHOTTKY RECTIFIERS



Dim.	Value Inch[mm] Min.	Max.
A	0.139 [3.55]	---
B	0.387 [9.85]	0.419 [10.66]
C	0.226 [5.75]	0.269 [6.85]
D	0.548 [13.93]	0.624 [15.87]
E	0.50 [12.70]	---
F	---	0.177 [4.50]
G	0.095[2.41]	0.105[2.67]
H	0.019 [0.50]	0.038 [0.96]
J	0.163 [4.16]	0.196 [5.00]
K	0.045 [1.15]	0.054 [1.39]
L	---	0.025 [0.65]

Fig 1. TO-220AB FOR MBR30U120CT



Dim.	Value Inch[mm] Min.	Max.
A	0.118 [3.0]	0.134 [3.4]
B	0.381 [9.7]	0.406[10.3]
C	0.248 [6.3]	0.272 [6.9]
D	0.583 [14.8]	0.606 [15.4]
E	0.512 [13.0]	0.548 [13.9]
F	---	0.161 [4.1]
G	0.095[2.41]	0.105[2.67]
H	0.019 [0.50]	0.028 [0.7]
J	0.165 [4.2]	0.189 [4.8]
K	0.099 [2.5]	0.130 [3.3]
L	---	0.032 [0.8]

Fig 2. ITO-220AB FOR MBR30U120FCT

PRODUCT FEATURES

1. FLAMMABILITY CLASSIFICATION 94V-0
2. EXTREMELY LOW V_F
3. TRENCH MOS SCHOTTKY TECHNOLOGY
4. LOW POWER LOSS / HIGH EFFICIENCY
5. HIGH FREQUENCY OPERATION
6. CASE: TRANSFER MOLDED
   TO-220AB FOR MBR30U120CT
   ITO-220AB FOR MBR30U120FCT
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_A =25°C UNLESS OTHERWISE NOTED) AND ELECTRICAL CHARACTERISTICS

RATING	SYMBOL		UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V_{RRM}	120	VDC
MAXIMUM RMS VOLTAGE	V_{RMS}	85	VAC
MAXIMUM DC BLOCKING VOLTAGE	V_{DC}	120	VDC
MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT SEE FIG.1	I_O	30 (PER DEVICE) 15 (PER LEG)	A
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD PER LEG	I_{FSM}	300	A
STORAGE TEMPERATURE RANGE	T_{STG}	- 55 TO +175	°C
OPERATING TEMPERATURE RANGE	T_J	- 55 TO +150	°C
MAXIMUM FORWARD VOLTAGE AT I_F= 15A T_J = 25°C	V_F	0.80	V
T_J =125°C		0.65	
TYPICAL FORWARD VOLTAGE I_F= 30A T_J = 25°C		0.65	
T_J =125°C		0.57	
MAXIMUM REVERSE CURRENT AT 25°C, PER LEG (NOTE 1)	I_R	0.1	mA
MAXIMUM REVERSE CURRENT AT 125°C, PER LEG (NOTE 1)	I_R	20	mA
TYPICAL THERMAL RESISTANCE JUNCTION TO CASE PER LEG	$R\theta jc$	MBR30U120CT: 2.2 MBR30U120FCT: 4.0	°C/W
ISOLATION VOLTAGE FROM TERMINAL TO HEATSINK T=1MIN		1500 (FOR MBR30U120FCT)	VAC

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

RATINGS AND CHARACTERISTIC CURVES

FIG. 1-FORWARD CURRENT DERATING CURVE

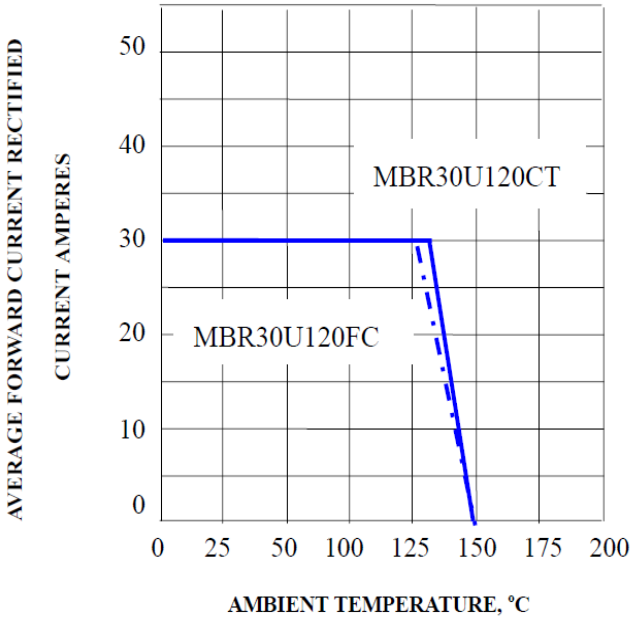


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE RATING

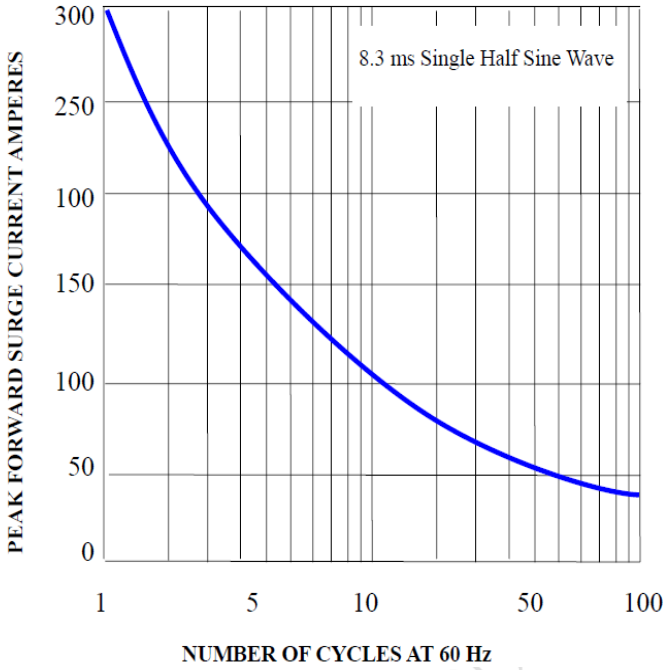


FIG. 3- TYPICAL REVERSE CHARACTERISTICS

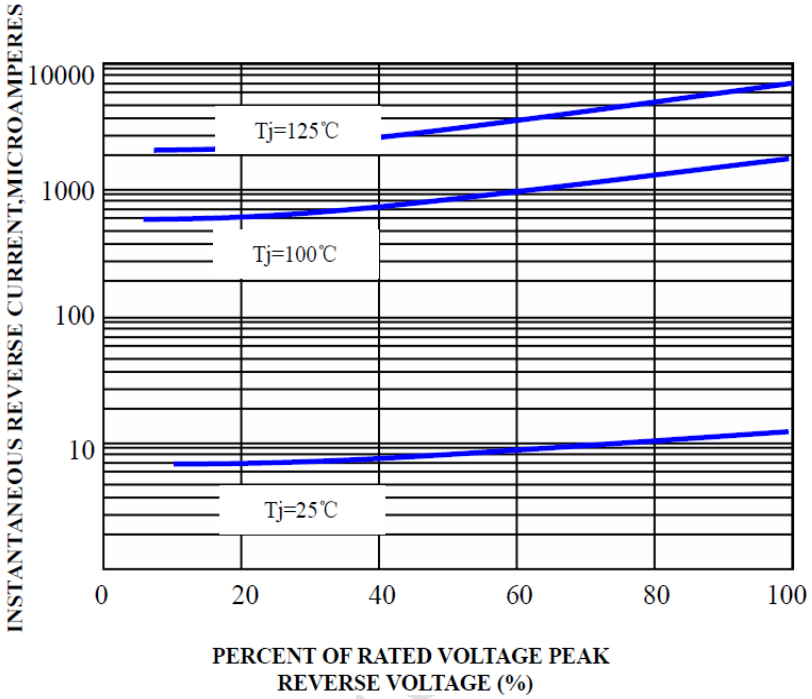
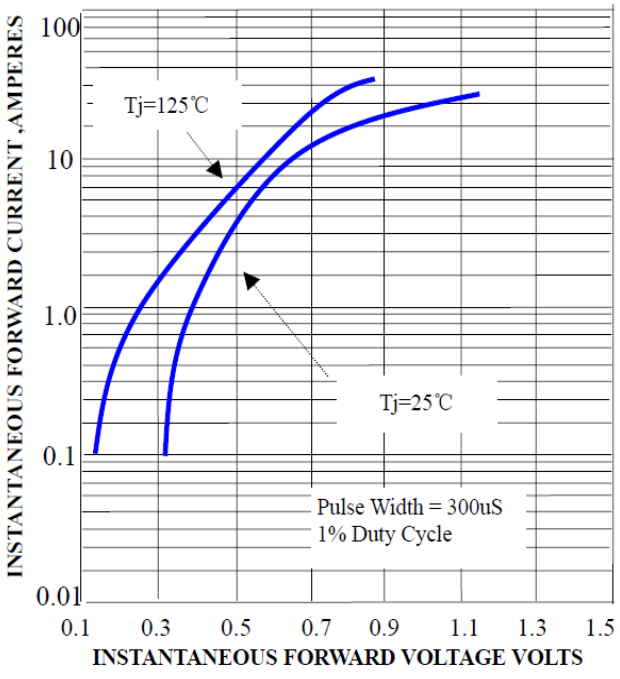


FIG. 4- TYPICAL INSTANTANEOUS FORWARD CHARCTERISTICS



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