

ALTERNATOR DIODE FOR AUTOMOTIVE APPLICATION.

### FEATURES

- Average Forward Current :  $I_O=50A$ .
- Zener Voltage : 21V(Typ.)

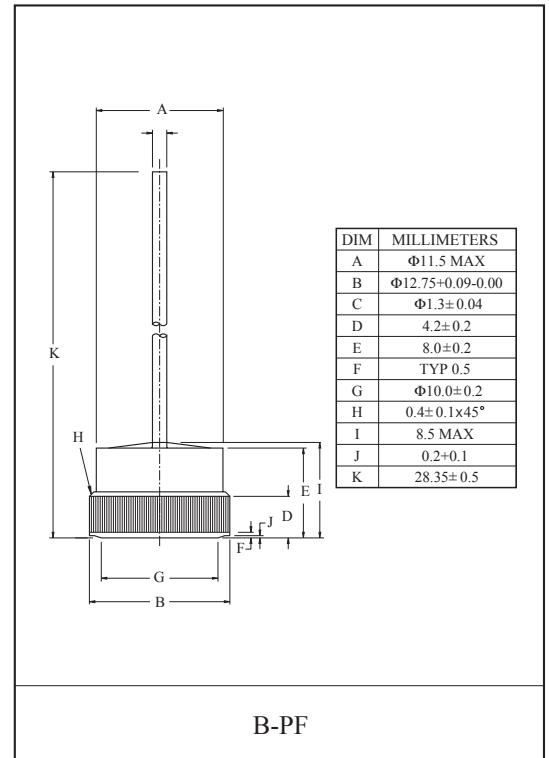
### POLARITY

E50A21VBS (+ Type)

E50A21VBR (- Type)

### MAXIMUM RATING ( $T_a=25^\circ C$ )

CHARACTERISTIC	SYMBOL	RATING	UNIT
Average Forward Current	$I_{F(AV)}$	50	A
Peak 1 Cycle Surge Current	$I_{FSM}$	380 (60Hz)	A
Non-Repetitive Peak Reverse Surge Current (10mS)	$I_{RSM}$	55	A
Transient Peak Reverse Voltage	$V_{RSM}$	19	V
Peak Reverse Voltage	$V_{RM}$	16	V
Junction Temperature	$T_j$	-40 ~ 215	$^\circ C$
Storage Temperature Range	$T_{stg}$	-40 ~ 215	$^\circ C$



### ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ C$ )

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Forward Voltage	$V_F$	$I_{FM}=100A$	-	-	1.05	V
Zener Voltage	$V_Z$	$I_Z=10mA$	19	21	23	V
Reverse Current	$I_R$	$V_R=18V$	-	-	0.3	$\mu A$
Transient Thermal Resistance	$\Delta V_F$	$I_{FM}=100A, I_M=100mA, P_w=100mS$	-	-	60	mV
Breakdown Voltage	$V_{br}$	$I_{rsm}=55A, P_w=10mS$	-	-	32	V
Temperature Coefficient	$\alpha_T$	$I_Z=10mA$	-	15.7	-	mV/ $^\circ C$
Reverse Leakage Current Under High Temperature	$HI_R$	$T_a=150^\circ C, V_R=18V$	-	-	100	$\mu A$
Temperature Resistance	$R_{th}$	DC total junction to case	-	-	0.6	$^\circ C/W$