

KEC**SEMICONDUCTOR
TECHNICAL DATA****E30A37VPS, E30A37VPR****STACK SILICON DIFFUSED DIODE**

ALTERNATOR DIODE FOR AUTOMOTIVE APPLICATION.

FEATURES

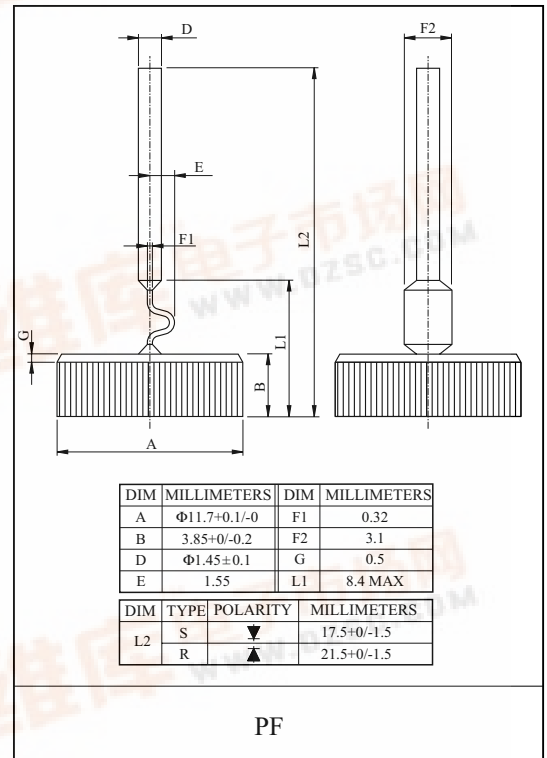
- Average Forward Current : $I_O=30A$.
- Zener Voltage : 37V(Typ.)

POLARITY

E30A37VPS E30A37VPR
(+ Type) (- Type)

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Average Forward Voltage	$I_{F(AV)}$	30	A
Peak 1 Cycle Surge Current	I_{FSM}	300 (50Hz)	A
Non-Repetitive Peak Reverse Surge Current (10mS)	I_{RSM}	30	A
Transient Peak Reverse Voltage	V_{RSM}	32	V
Peak Reverse Voltage	V_{RM}	32	V
Junction Temperature	T_j	-40 ~200	$^{\circ}C$
Storage Temperature Range	T_{stg}	-40 ~200	$^{\circ}C$

**ELECTRICAL CHARACTERISTICS** ($T_a=25^{\circ}C$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Peak Forward Voltage	V_{FM}	$I_{FM}=100A$	-	-	1.2	V
Zener Voltage	V_Z	$I_Z=10mA$	34	37	40	V
Repetitive Peak Reverse Current	I_{RRM}	$V_R=V_{RM}$	-	-	10	μA
Transient Thermal Resistance	$\angle V_F$	$I_{FM}=100A$	-	-	140	mV
Reverse Leakage Current Under High Temperature	H_{IR}	$T_a=200^{\circ}C$, $V_R=V_{RM}$	-	-	2.5	mA
Temperature Resistance	R_{th}	DC total junction to case	-	-	1.0	$^{\circ}C/W$