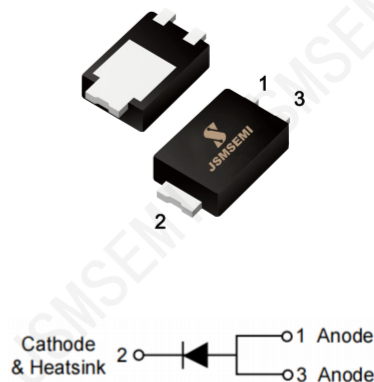


FEATURES

- EXTREMELY LOW VF
- LOW STORED CHARGE, MAJORITY CARRIER CONDUCTION
- LOW POWER LOSS / HIGH EFFICIENCY
- UL 94V0 FLAME RETARDANT EPOXY MOLDING COMPOUND
- HALOGENFREE

MECHANICAL DATA

- CASE : TRANSFER MOLDED
- LEADS : SOLDERABLE PER MIL-STD-202, METHOD 208
- POLARITY : AS MARKED
- WEIGHT : 0.095GRAMS(APPROXIMATELY)



TO-277

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED SINGLE PHASE, HALF WAVE, 60 HZ, RESISTIVE OR INDUCTIVE LOAD.FOR CAPACITIVE LOAD, DERATE CURRENT BY 20%

| RATINGS | SYMBOL | PMEG045V100EPDZ-JSM | UNITS |
|--|-----------|---------------------|-------|
| MAXIMUM RECURRENT PEAK REVERSE VOLTAGE | V_{RRM} | 45 | V |
| MAXIMUM RMS VOLTAGE | V_{RMS} | 31.5 | V |
| MAXIMUM DC BLOCKING VOLTAGE | V_{DC} | 45 | V |
| MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT SEE FIG.1 PER LEG | I_o | 10 | A |
| PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE -WAVE SUPERIMPOSED ON RATED LOAD PER LEG | I_{FSM} | 200 | A |
| STORAGE TEMPERATURE RANGE | T_{STG} | -65 To + 175 | °C |
| OPERATING JUNCTION TEMPERATURE RANGE | T_J | -55 To + 150 | °C |

ELECTRICAL CHARACTERISTICS

| CHARACTERISTICS | SYMBOL | PMEG045V100EPDZ-JSM | UNITS |
|---|--------|---------------------|-------|
| MAXIMUM FORWARD VOLTAGEAT $I_F = 10A$ $T_J = 25^\circ C$ $T_J = 125^\circ C$ | VF | 0.55 | V |
| | | 0.45 | |
| TYPICALFORWARD VOLTAGEAT $I_F = 1A$ $T_J = 125^\circ C$ | | 0.35 | |
| TYPICALFORWARD VOLTAGEAT $I_F = 3A$ $T_J = 125^\circ C$ | | 0.40 | |
| TYPICALFORWARD VOLTAGEAT $I_F = 5A$ $T_J = 125^\circ C$ | | 0.42 | |
| 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 |

THERMAL CHARACTERISTICS ($T_c=25^\circ C$ UNLESS OTHERWISE NOTED)

| PARAMETER | SYMBOL | PMEG045V100EPDZ-JSM | UNITS |
|---|-----------------|---------------------|-------|
| TYPICAL THERMAL RESISTANCE JUNCTION TO CASE PER LEG | $R_{\theta jc}$ | 23 | °C/W |

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

RATINGS AND CHARACTERISTIC CURVES

FIG. 1-FORWARD CURRENT DERATING CURVE

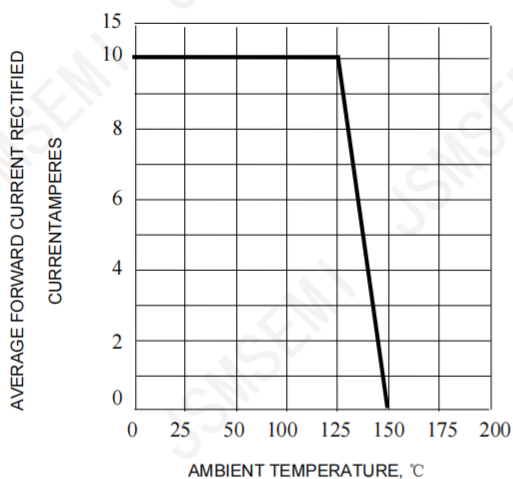


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE RATING

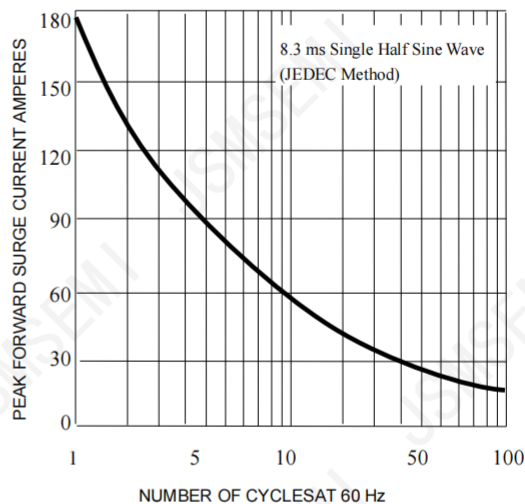


FIG. 3-TYPICAL REVERSE CHARACTERISTICS

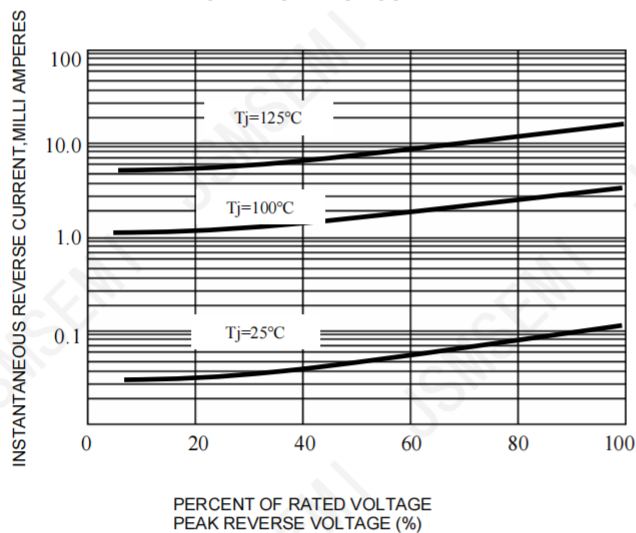
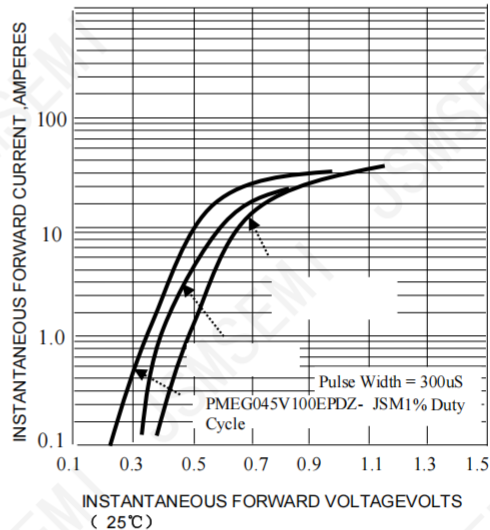
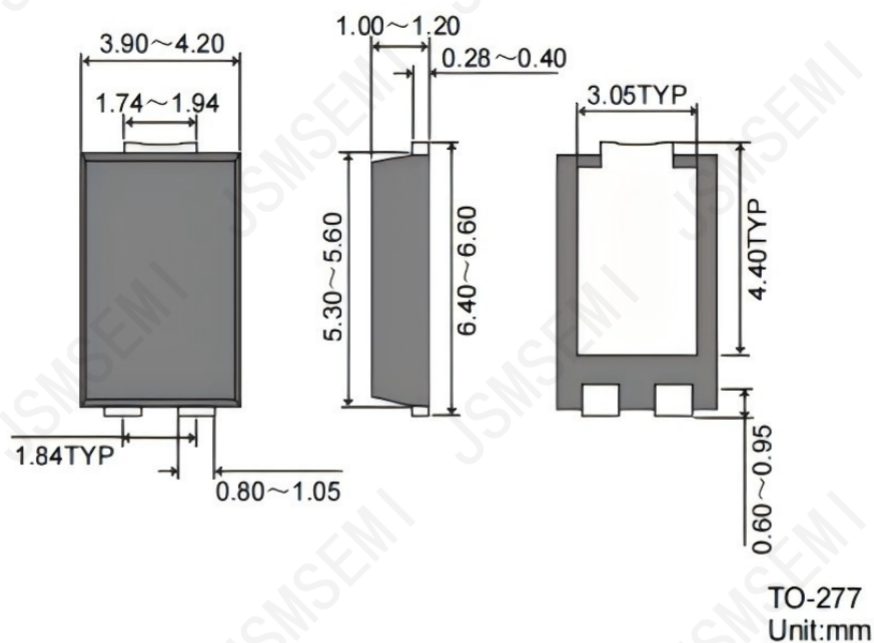


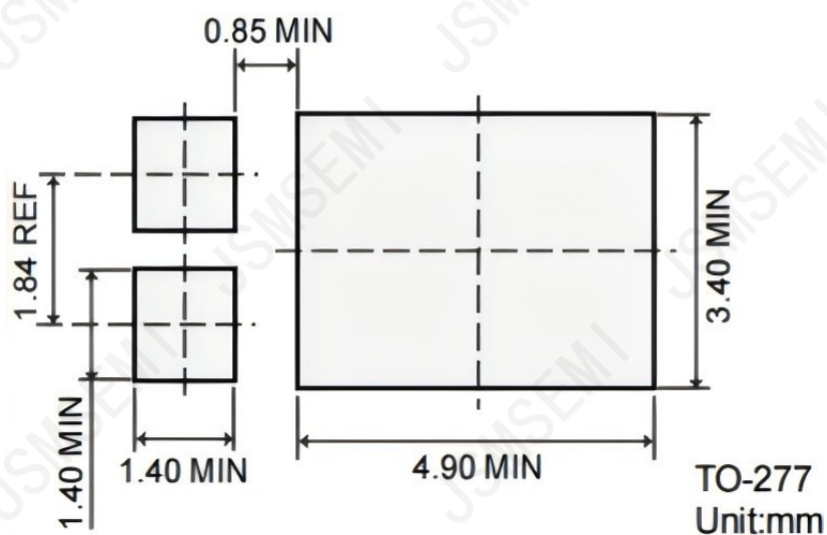
FIG. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



PACKAGE OUTLINE DIMENSIONS



SUGGESTED SOLDER PAD LAYOUT



Revision History

| Rev. | Change | Date |
|------|-----------------|-----------|
| V1.0 | Initial version | 6/27/2021 |
| | | |

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