

GLASS PASSIVATED BRIDGE RECTIFIERS
VOLTAGE 50 to 1000 Volts CURRENT 3.0 Ampere

FEATURES

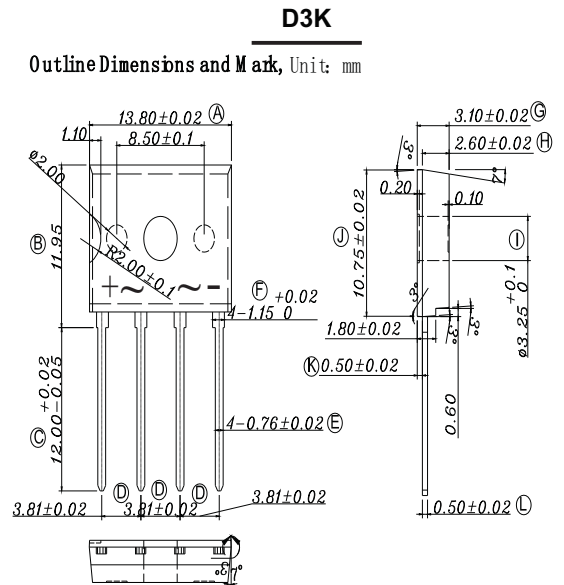
Glass passivated chip junction
High case dielectric strength
High surge current capability
Ideal for printed circuit board

MACHANICAL DATA

Terminal:Plated leads solderable per MIL-STD 202E,
Method 208C
Case:UL-94 Class V-0 recognized Flame Retardant Epoxy
Polarity:Polarity symbol marked on body
Mounting position:any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%



| CHARACTERISTICS | SYMBOL | DRS301K | DRS302K | DRS303K | DRS304K | DRS305K | DRS306K | DRS307K | UNIT |
|---|----------------------|-----------------|---------|---------|---------|---------|---------|---------|---------------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectified Output Current @ $T_c=138^{\circ}C$ (with heatsink) | $I_{(AV)}$ | 3 | | | | | | | A |
| Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method) | I_{FSM} | 100 | | | | | | | A |
| Maximum Forward Voltage at 3.0A DC | V_F | 1.1 | | | | | | | V |
| I^2t Rating for Fusing ($t<8.3ms$) | I^2t | 41.5 | | | | | | | A^2s |
| Typical Thermal Resistance | without heatsink | $R_{\theta Ja}$ | | | | | | | $^{\circ}C/W$ |
| | with heatsink | $R_{\theta Jc}$ | | | | | | | |
| | without heatsink | $R_{\theta JL}$ | | | | | | | |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | @ $T_a=25^{\circ}C$ | 1.0 | | | | | | | μA |
| | @ $T_a=125^{\circ}C$ | 500 | | | | | | | |
| Operating Temperature Range | T_J | -55 to +150 | | | | | | | $^{\circ}C$ |
| Storage Temperature Range | T_{STG} | -55 to +150 | | | | | | | $^{\circ}C$ |

RATING AND CHARACTERISTICS CURVES (DRS301K THRU DRS307K)

FIG.1-DERATING CURVE OUTPUT RECTIFIED CURRENT

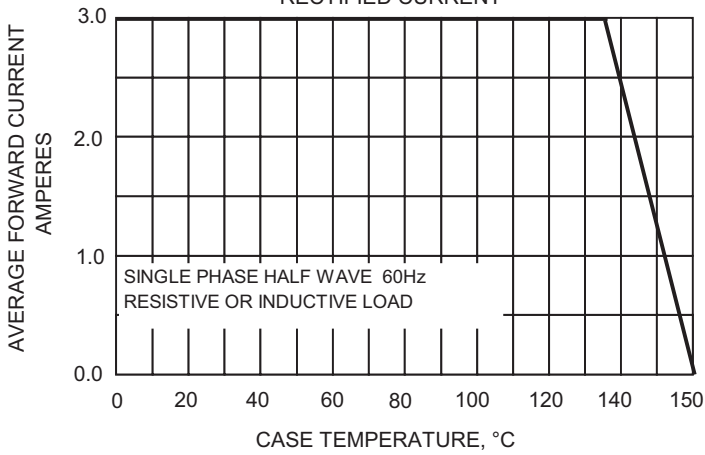


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

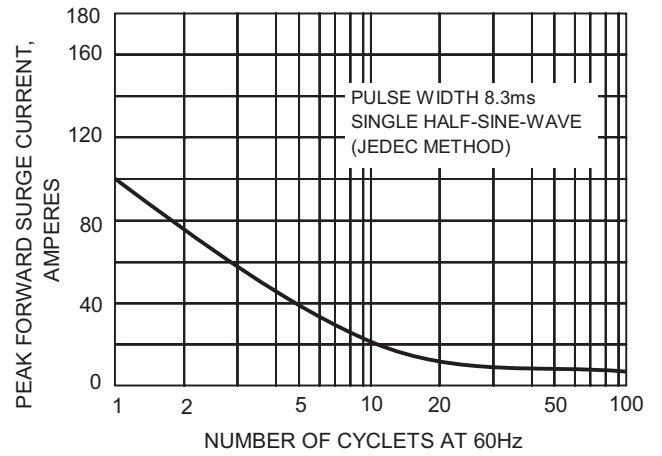


FIG.3-TYPICAL JUNCTION CAPACITANCE

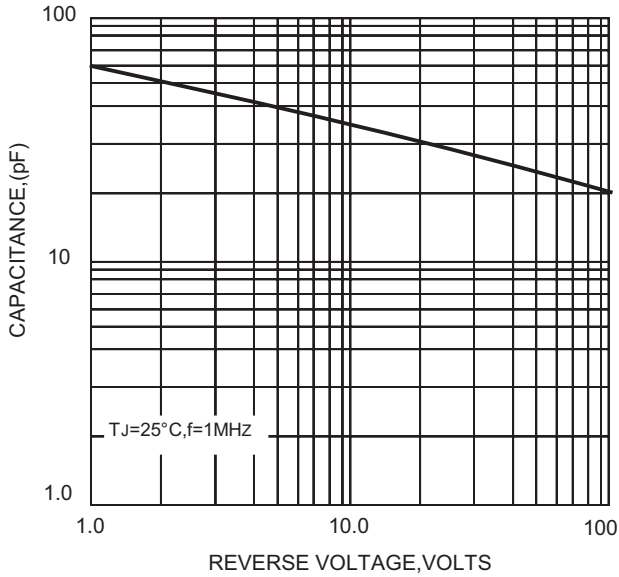


FIG.3-TYPICAL FORWARD CHARACTERISTICS

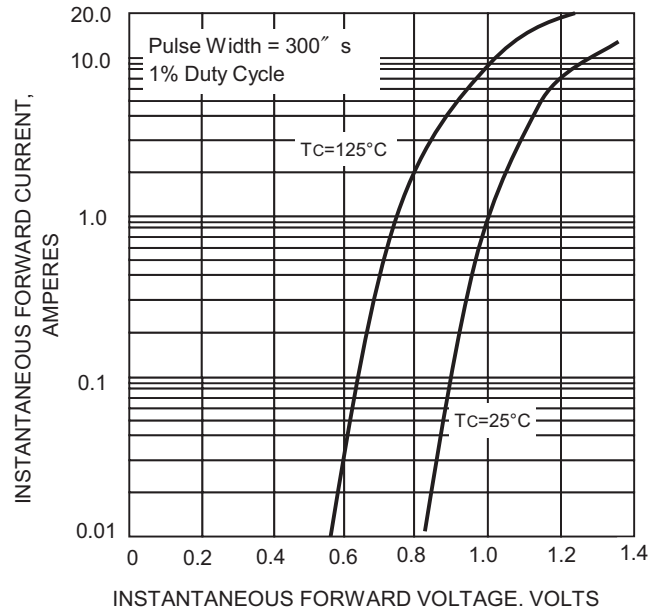
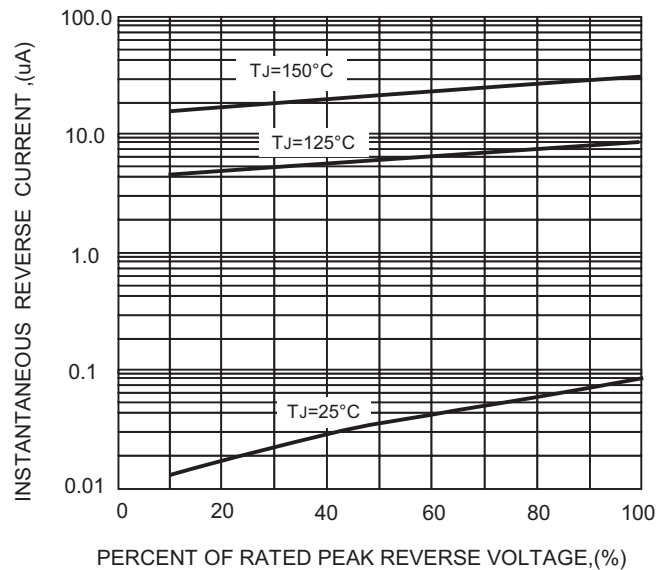
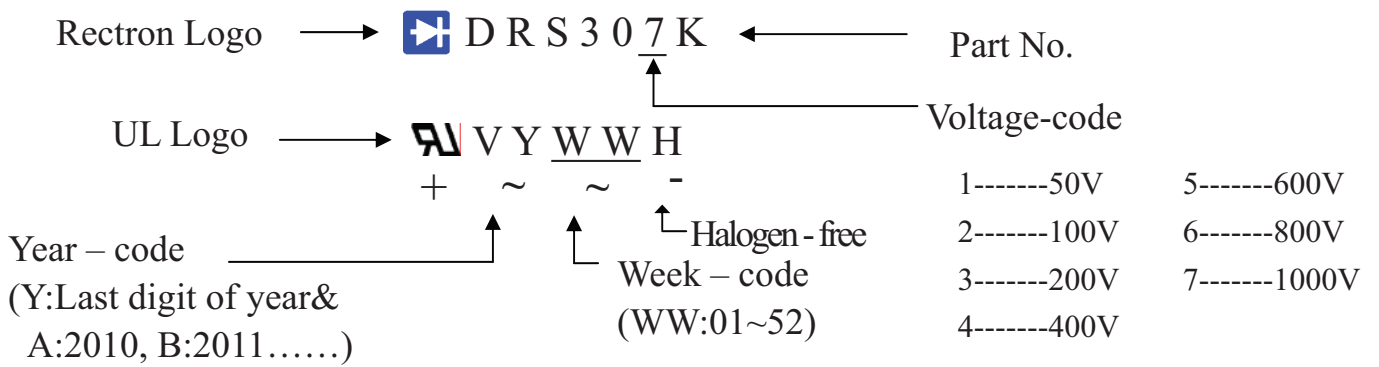


FIG.5-TYPICAL REVERSE CHARACTERISTICS



Marking Description



PACKAGING OF DIODE AND BRIDGE RECTIFIERS

BULK PACK

| PACKAGE | PACKING CODE | EA PER BOX | INNER BOX SIZE (mm) | CARTON SIZE (mm) | EA PER CARTON | GROSS WEIGHT(Kg) |
|---------|--------------|------------|------------------------|---------------------|---------------|---------------------|
| D3K | -B | 600 | 280*105*26 | 300*240*170 | 6,000 | 9.2 |

TUBE PACK

| PACKAGE | PACKING CODE | EA PER BOX | INNER BOX SIZE (mm) | CARTON SIZE (mm) | EA PER CARTON | WEIGHT(Kg) |
|---------|--------------|------------|------------------------|---------------------|---------------|------------|
| D3K | -C | 1,500 | 450*154*60 | 470*340*210 | 9,000 | 20.89 |

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