

## 50 AMP PRESS FIT TVS DIODES (PRELIMINARY)

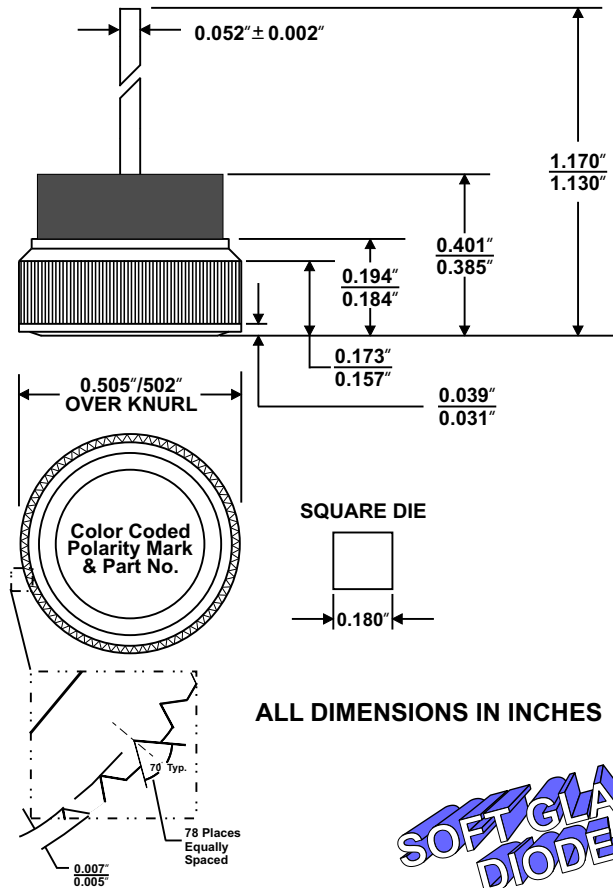
### FEATURES

- VOID FREE VACUUM DIE SOLDERING FOR MAXIMUM MECHANICAL STRENGTH AND HEAT DISSIPATION (Solder Voids: Typical  $\leq 2\%$ , Max.  $\leq 10\%$  of Die Area)
- LARGE DIE FOR HIGH POWER HEAVY DUTY PERFORMANCE
- HIGH HEAT HANDLING CAPABILITY WITH VERY LOW THERMAL STRESS
- Proprietary SOFT GLASS<sup>®</sup> junction passivation for superior reliability and performance
- Very low forward voltage drop
- Protects expensive automotive electronics and mobile equipment

### MECHANICAL DATA

- Case: Nickel plated copper
- Finish: All external surfaces are corrosion resistant and the contact areas are readily solderable
- Soldering Temperature: 250 °C maximum
- Mounting Position: Any. Maximum force used for diode insertion to be 12 KN
- Polarity: Color coded polarity mark and part number on cap base (ANODE on LEAD; Part No.=TVS5024PFA) (CATHODE on LEAD; Part No.=TVS5024PFC)

### MECHANICAL SPECIFICATION



### MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

PARAMETER (TEST CONDITIONS)	SYMBOL	RATINGS		UNITS
		TVS5024PFC	TVS5024PFA	
Series Number				
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	23	23	VOLTS
Working Peak Reverse Voltage	V <sub>RWM</sub>			
Maximum DC Blocking Voltage	V <sub>DC</sub>			
Breakdown Voltage (I <sub>R</sub> = 100 mA dc, T <sub>c</sub> = 25 °C)	V <sub>(BR)</sub>	24 Min / 32 Max	24 Min / 32 Max	
Average Forward Rectified Current	I <sub>O</sub>	50	50	AMPS
Non-repetitive Peak Forward Surge Current (Half wave, single phase, 60 Hz sine applied to rated load)	I <sub>FSM</sub>	600	600	
Repetitive Peak Reverse Surge Current (Time Constant = 10 mSec Duty Cycle $\leq 1.0\%$ , T <sub>c</sub> = 25 °C)	I <sub>RSM</sub>	110	110	
Instantaneous Forward Voltage (I <sub>F</sub> = 100A@ 300 $\mu$ Secpulse, T <sub>c</sub> = 25°C)	V <sub>F</sub>	1.05 1.00 (Typical)	1.05 1.00	VOLTS
Maximum DC Reverse Current (V <sub>R</sub> = 20V DC, T <sub>c</sub> = 25 °C)	I <sub>R</sub>	200	200	nA
Maximum Thermal Resistance, Junction to Case (Note 1)	R <sub>θJC</sub>	0.8	0.8	°C/W
Junction Operating & Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +175	-65 to +175	°C