# DIOTEC ELECTRONICS CORP

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# 25 AMP TAB MOUNTED BUTTON DIODES

### **FEATURES**

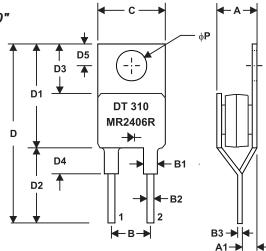
- Void Free Vacuum Die Soldering For Maximum Mechanical Strength And Heat Dissipation (Solder Voids: Typical < 2%, Max. < 10% of Die Area)</li>
- Large Die For High Power Heavy Duty Performance
- High Heat Handling Capability With Very Low Thermal Stress
- Proprietary Junction Passivation For Superior Reliability And Performance
- Low Forward Voltage Drop

## **MECHANICAL DATA**

- Structure: Epoxy encapsulated diode body with metal tabs
- Finish: All external surfaces are corrosion resistant and readily solderable
- Maximum Soldering Temperature: 250 °C 3/8" from case for 10 seconds
- Mounting: Lead or chassis mounted, same configuration as TO-220AB
- Mounting Torque: 8 in-lbs Max.
- Polarity: Cathode to Front Tab
- Weight: 1.2 Ounces (3.6 Grams), approximately

#### MECHANICAL SPECIFICATION

Die Size: 0.160" x 0.160" Square





Sym	Min	Max								
Α	0.284	0.310								
A1	0.080	0.115								
В	0.170	0.210								
B1	0.060	0.090								
B2	0.025	0.045								
B3	0.023	0.029								
С	0.380	0.420								
D		1.187								
D1	0.560	0.625								
D2		0.562								
D3	0.230	0.270								
D4		0.200								
D5	0.100	0.120								
φР	0.139	0.147								

ALL DIMENSIONS IN INCHES

### **MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.

PARAMETER (TEST CONDITIONS)		SYMBOL	RATINGS					UNITS
Series Number			MR 2400R	MR 2401R	MR 2402R	MR 2404R	MR 2406R	
Maximum DC Blocking Voltage		VRRM	50	100	200	400	600	
Maximum RMS Voltage		VRWM						VOLTE
Maximum Peak Recurrent Reverse Voltage		<b>V</b> DC	1					VOLTS
Non-repetitive Peak Reverse Voltage (Half wave, single phase, 60 Hz peak)		VRSM	60	120	240	480	720	
Average Forward Rectified Current @ Tc =150 °C			25					
Peak Forward Surge Current (8.3mS single half sine wave superimposed on rated load)		lfsm	400					AMPS
Maximum Forward Voltage Drop at 25 Amp DC			1.05 (Typical 1.00)					VOLTS
Maximum Average DC Reverse Current @ TA = 25 °C At Rated DC Blocking Voltage @ TA = 100 °C			1 50					μ <b>Α</b>
Maximum Thermal Resistance, Junction to Case (Note 1)			0.95					°C/W
Junction Operating and Storage Temperature Range			-65 to +175					°C

Data Sheet No. MR2400-1