



## 25A / 400V FAST RECOVERY RECTIFIER

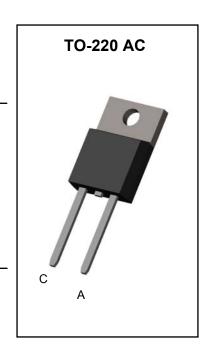
High current Fast Recovery Rectifier housed in the industry-standard TO-220AC package. These are high-efficiency, silicon rectifiers for industrial applications.

## **SPECIFICATION FEATURES**

- High Current (I<sub>F(AV)</sub>= 25A)
- Low V<sub>F</sub> for Lower Forward Conduction Losses
- Soft Recovery Characteristic
- Glass Passivated Junction
- Clip Construction for High Surge Current Capability

## **APPLICATIONS**

- Voltage Regulators
- Automotive and Industrial Rectification



**MARKING CODE: FR2504** 

## **MAXIMUM RATINGS**

Rating	Symbol	Value	Units
Peak Repetitive Reverse Voltage	$V_{RRM}$	400	V
Working Peak Reverse Voltage	$V_{RWM}$	400	V
DC Blocking Voltage	V <sub>DC</sub>	400	V
Average Rectified Forward Current (T <sub>C</sub> = 100 °C)	I <sub>F(AV)</sub>	25	А
Non-Repetitive Peak Forward Surge Current	I FSM	280	А
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>stg</sub>	-50 to 150	°C

## THERMAL CHARACTERISTICS

Rating	Symbol	Value	Units
Thermal Resistance junction to case	R <sub>ÐJC</sub>	1.0	°C/Watt





# ELECTRICAL CHARACTERISTICS (T<sub>J</sub> = 25°C unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Forward voltage (Note 1)	V <sub>F</sub>	I <sub>F</sub> = 25A	-	1.17	1.3	V
		I <sub>F</sub> = 50A	-	1.35	1.5	'
Reverse Leakage Current	IR	V <sub>R</sub> =400V	-	-	10	uA
Reverse Recovery Time	t <sub>rr</sub>	IF =0.5A, IR = 1.0A, I <sub>RR</sub> =0.25A	-	110	250	ns

Note 1. Short duration pulse to minimize self-heating

## TYPICAL CHARACTERISTICS $(T_J = 25^{\circ}C)$ unless otherwise noted)

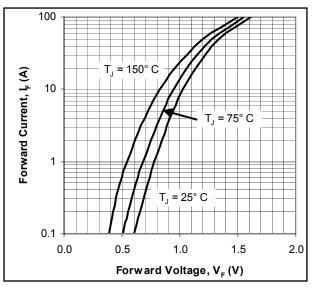
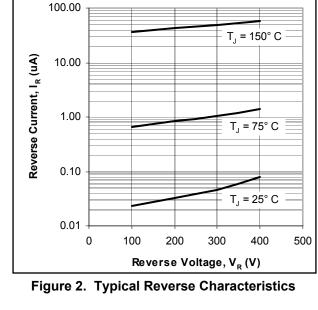


Figure 1. Typical Forward Characteristics



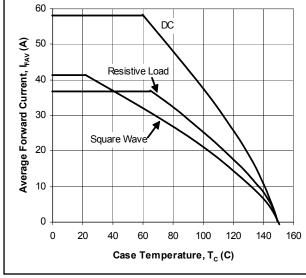


Figure 3. Current Derating Curves

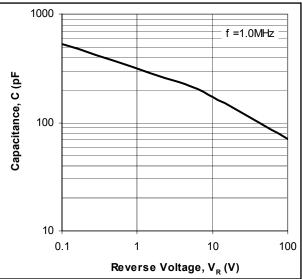
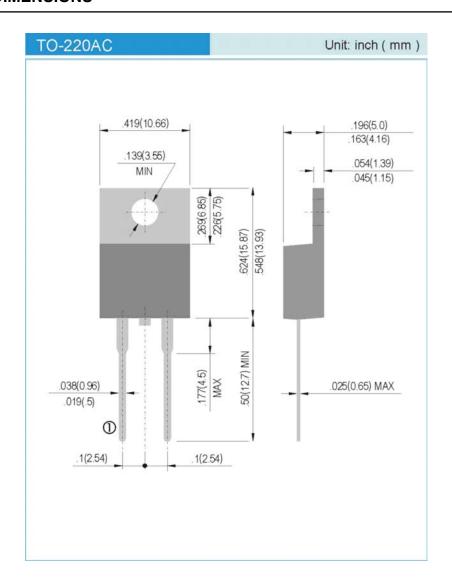


Figure 4. Typical Capacitance





## PACKAGE DIMENSIONS



## ORDERING INFORMATION

FR2504 B - Bulk, 50 units per tube, 2K per box

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