



25A SURFACE MOUNT FAST RECOVERY RECTIFIER

High current Fast Recovery Rectifier housed in the industry-standard D2PAK package. These are high-efficiency, silicon rectifiers for industrial applications requiring surface mount form factor.

SPECIFICATION FEATURES

- High Current (I_{F(AV)}= 25A)
- Low V_F for Lower Forward Conduction Losses
- Soft Recovery Characteristic
- Glass Passivated Junction
- Y-Clip Construction for High Surge Current Capability

APPLICATIONS

- Voltage Regulators
- Automotive and Industrial Rectification

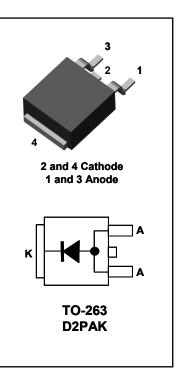
MARKING CODE: FR2504DY

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 _{DC}	400	V
Average Rectified Forward Current (T _C = 100 °C)	I _{F(AV)}	25	А
Non-Repetitive Peak Forward Surge Current	I _{FSM}	280	А
Operating Junction and Storage Temperature Range	T _J , T _{stg}	-50 to 150	°C

THERMAL CHARACTERISTICS

Rating	Symbol	Value	Units
Thermal Resistance junction to case	R _{θJC}	1.0	°C/Watt







ELECTRICAL CHARACTERISTICS (T_J = 25°C unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Forward voltage (Note 1)	V _F	l _F = 25A	-	1.17	1.3	V
		I _F = 50A	-	1.35	1.5	
Reverse Leakage Current	١ _R	V _R =400V	-	-	10	uA
Reverse Recovery Time	t m	IF =0.5A, IR = 1.0A, I _{RR} =0.25A	-	110	250	ns

Note 1. Short duration pulse to minimize self-heating

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

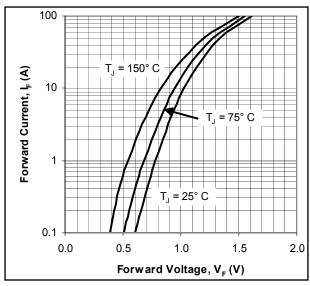


Figure 1. Typical Forward Characteristics

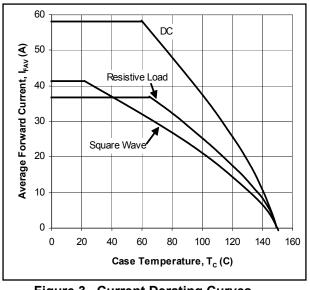


Figure 3. Current Derating Curves

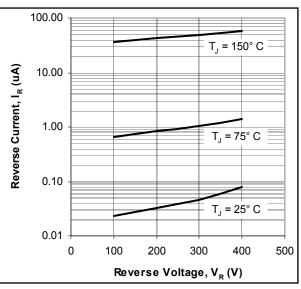
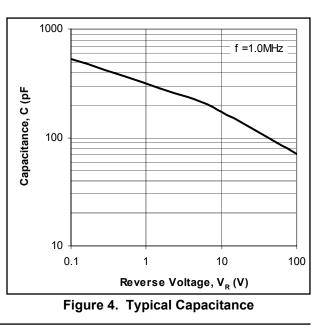


Figure 2. Typical Reverse Characteristics

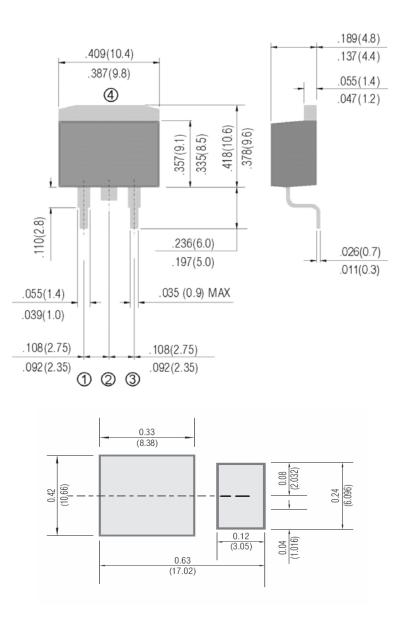






PACKAGE DIMENSIONS AND SUGGESTED PAD LAYOUT





ORDERING INFORMATION

FR2504DY T/R - Tape and Reel, 800 Units Per Reel

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