



Micro Commercial Components

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FRB2504

25 Amp Surface Mount Fast Recovery Rectifier

Features

- High Current($I_{F(AV)}=25A$)
- Low V_F for Forward Conduction Losses
- Glass Passivated Junction
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Marking:FRB2504

MAXIMUM RATINGS

Rating	Symbol	Value	Units
Peak Repetitive Reverse Voltage	V_{RRM}	400	V
Working Peak Reverse Voltage	V_{RRM}	400	V
DC Blocking Voltage	V_{DC}	400	V
Average Rectified Forward Current($T_C=100^\circ C$)	$I_{F(AV)}$	25	A
Non-Repetitive Peak Forward Surge Current	I_{FSM}	280	A
Operating Junction and Storage Temperature Range	T_J, T_{stg}	-50 to 150	$^\circ C$

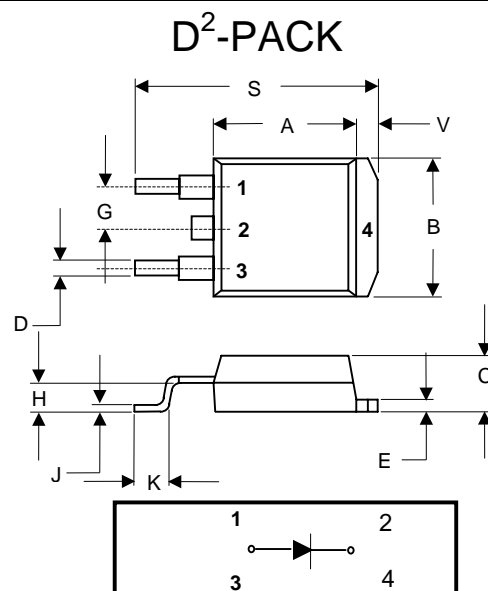
THERMAL CHARACTERISTICS

Rating	Symbol	Value	Units
Thermal Resistance Junction To Case	R_{thJC}	1	$^\circ C/watt$

ELECTRICAL CHARACTERISTICS ($T_J = 25^\circ C$ unless otherwise noted)

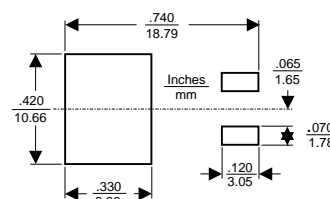
Parameter	Symbol	Conditions	Typical	Max	Units
Forward voltage(Note 1)	V_F	$I_F=25A$	1.17	1.3	V
		$I_F=50A$	1.35	1.5	
Reverse Leakage Current	I_R	$V_R=400V$	--	10	μA
Reverse Recovery Time	T_{rr}	$I_F=0.5A, I_R=1.0A$ $I_{RR}=0.25A$	110	250	ns

Note 1. Short duration pulse to minimize self-heating



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.320	.359	8.13	9.14	
B	.380	.411	9.65	10.45	
C	.160	.190	4.06	4.83	
D	.020	.035	0.51	0.89	
E	.045	.055	1.14	1.40	
G	.095	.105	2.41	2.67	
H	.096	.120	2.43	3.03	
J	.014	.021	0.35	0.53	
K	.090	.110	2.29	2.79	
S	.575	.625	14.60	15.80	
V	.045	.055	1.14	1.40	

SUGGESTED SOLDER PAD LAYOUT



TYPICAL CHARACTERISTICS (T = 25°C unless otherwise noted)

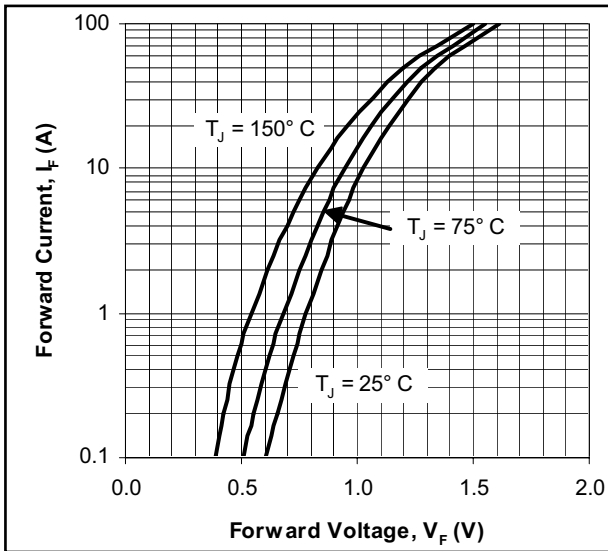


Figure 1. Typical Forward Characteristics

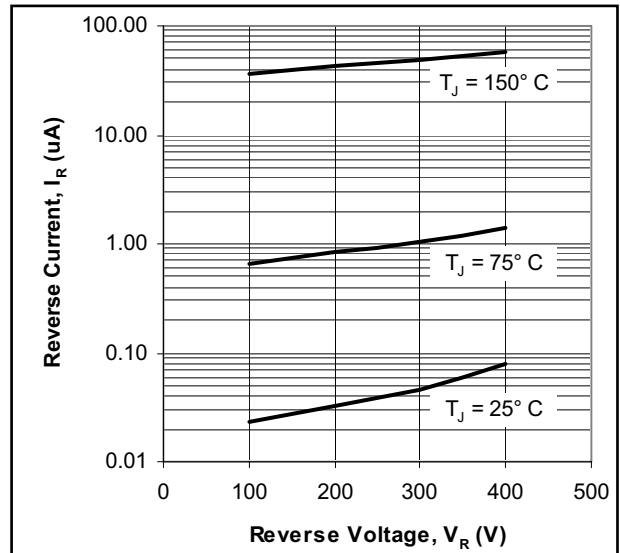


Figure 2. Typical Reverse Characteristics

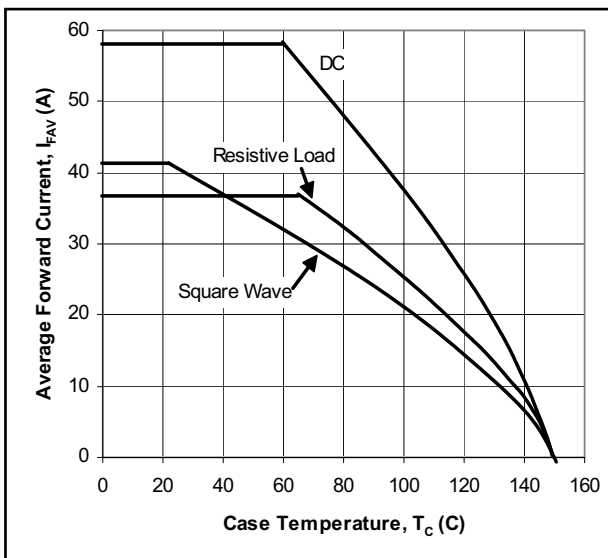


Figure 3. Current Derating Curves

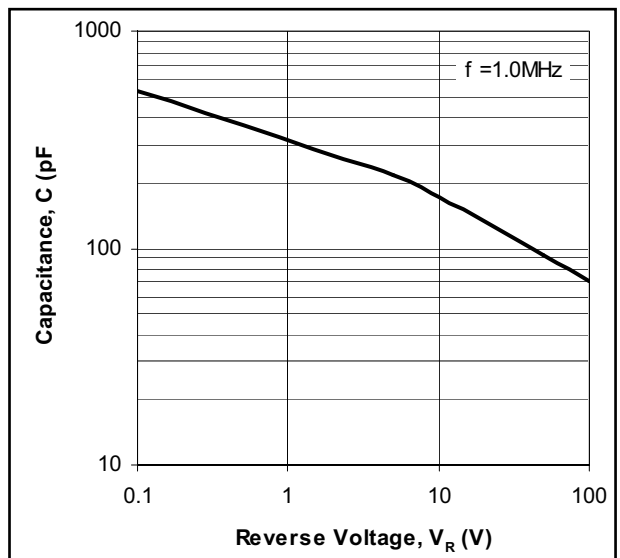


Figure 4. Typical Capacitance



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