



Micro Commercial Components



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FRB2504

25 Amp Surface Mount Fast Recovery Rectifier

Features

- Lead Free Finish/RoHS Compliant(Note 1)("P" Suffix designates Compliant. See ordering information)
- High Current($I_{F(AV)}=25A$)
- Low V_F for Forward Conduction Losses
- Glass Passivated Junction
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking:FRB2504
- Halogen free available upon request by adding suffix "-HF"

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	$^\circ C$

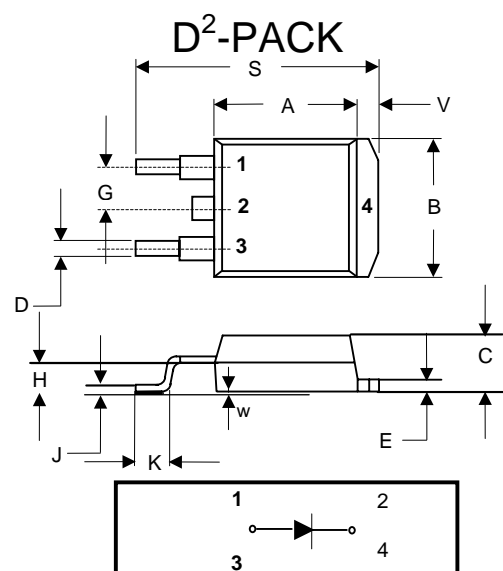
THERMAL CHARACTERISTICS

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)

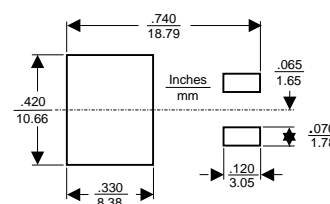
Parameter	Symbol	Conditions	Typical	Max	Units
Forward voltage(Note 1)	V_F	$I_F=25A$	1.17	1.3	V
		$I_F=50A$	1.35	1.5	
Reverse Leakage Current	I_R	$V_R=400V$	--	10	μA
Reverse Recovery Time	T_{rr}	$I_F=0.5A, I_R=1.0A$ $I_{RR}=0.25A$	110	250	ns

Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.



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	
W	0	.006	0	0.15	

SUGGESTED SOLDER PAD LAYOUT



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

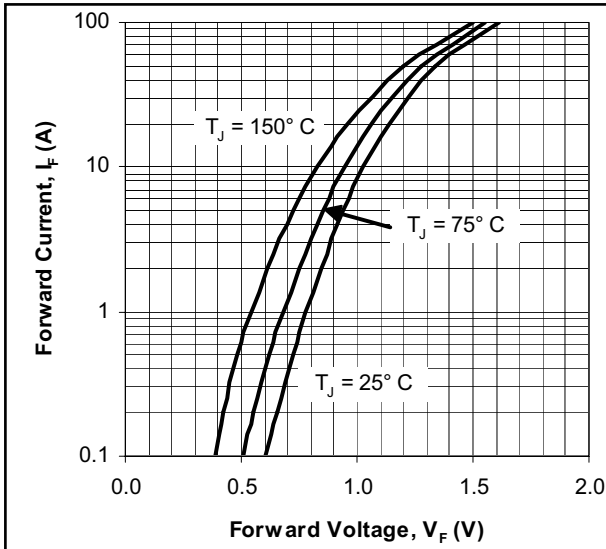


Figure 1. Typical Forward Characteristics

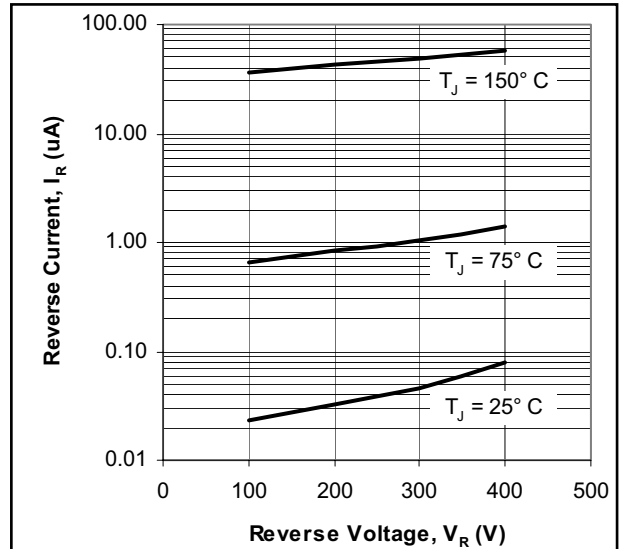


Figure 2. Typical Reverse Characteristics

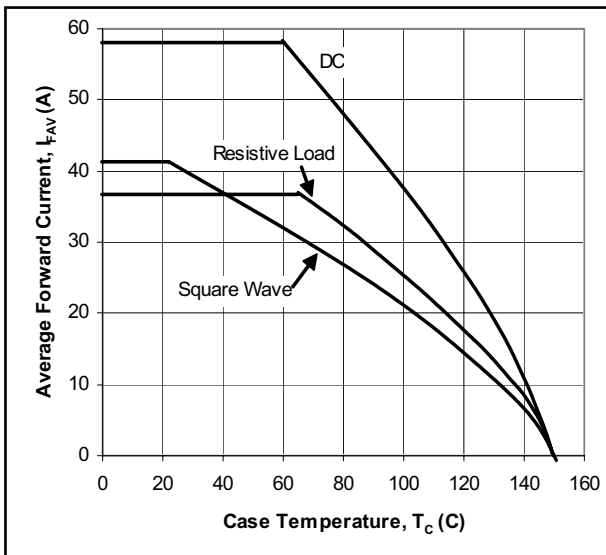


Figure 3. Current Derating Curves

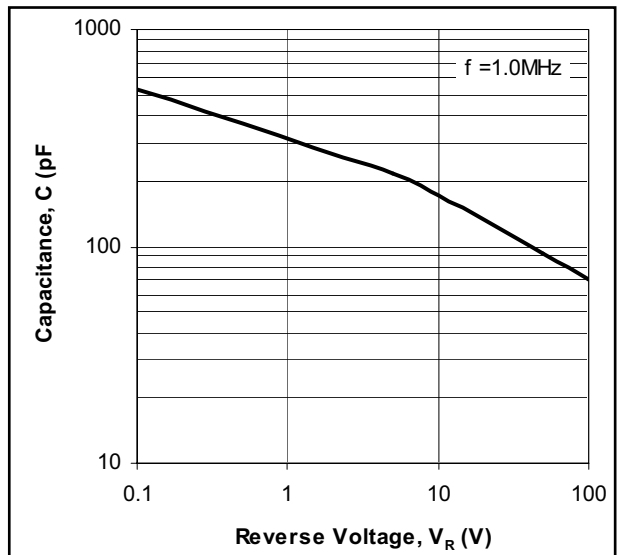
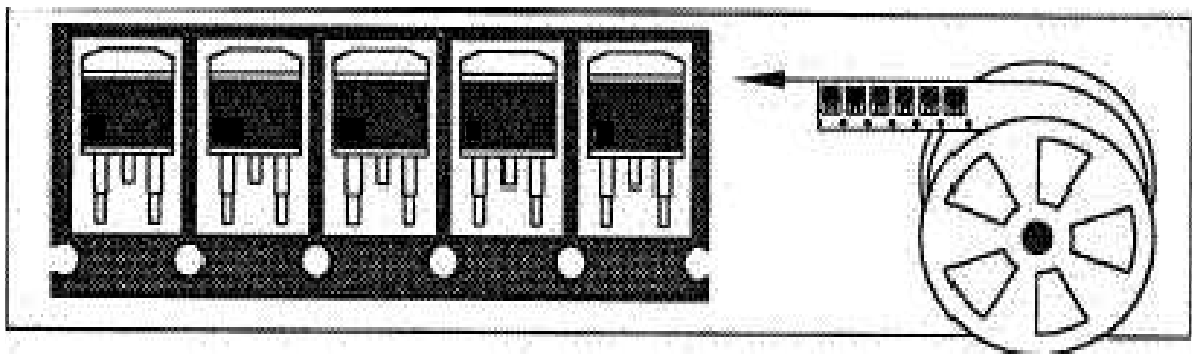


Figure 4. Typical Capacitance

Part Orientation In Tape



20 Empty Pockets For Leader Tape
Ordering with pn#: FRB2504-TP



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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 800pcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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