



Micro Commercial Components

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FR2504

25 Amp Fast Recovery Rectifier

Features

- Halogen free available upon request by adding suffix "-HF"
- High Current($I_{F(AV)}=25A$)
- Low V_F for Forward Conduction Losses
- Glass Passivated Junction
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1
- Marking:FR2504

MAXIMUM RATINGS

- Mounting Torque: 5 in-lbs Maximum

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

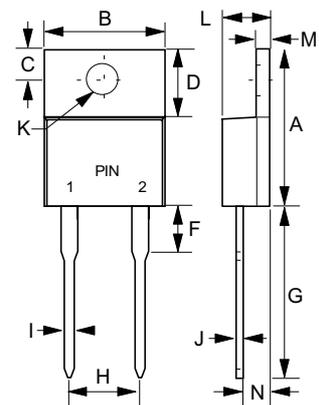
Rating	Symbol	Value	Units
Thermal Resistance Junction To Case	R_{thJC}	1	$^\circ C/watt$

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

Parameter	Symbol	Conditions	Typical	Max	Units
Forward voltage(Note 2)	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

Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.
2. Short duration pulse to minimize self-heating

TO-220AC



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.560	.625	14.22	15.88	
B	.380	.420	9.65	10.67	
C	.100	.135	2.54	3.43	
D	.230	.270	5.84	6.86	
F	-----	.250	-----	6.35	
G	.500	.580	12.70	14.73	
H	.190	.210	4.83	5.33	
I	.020	.045	0.51	1.14	
J	.012	.025	0.30	0.64	
K	.139	.161	3.53	4.09	∅
L	.140	.190	3.56	4.83	
M	.045	.055	1.14	1.40	
N	.080	.115	2.03	2.92	

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

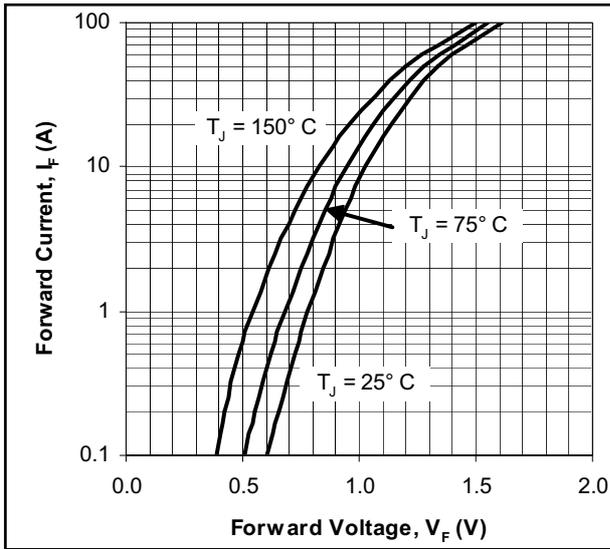


Figure 1. Typical Forward Characteristics

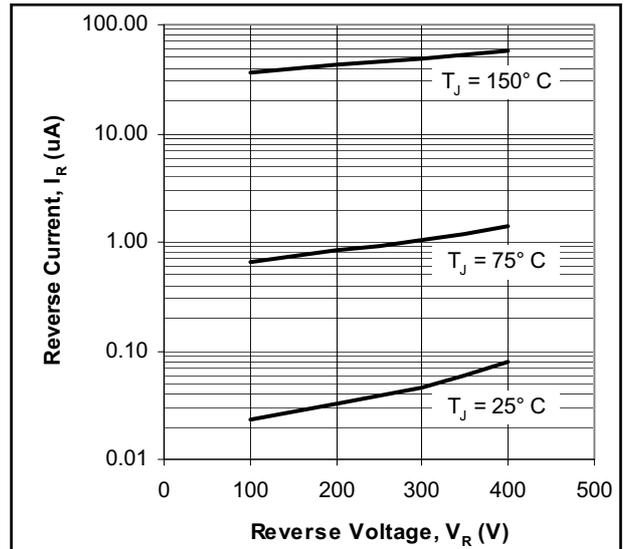


Figure 2. Typical Reverse Characteristics

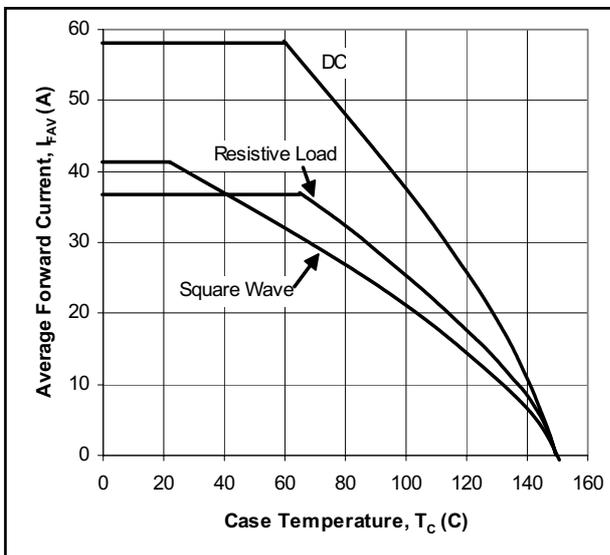


Figure 3. Current Derating Curves

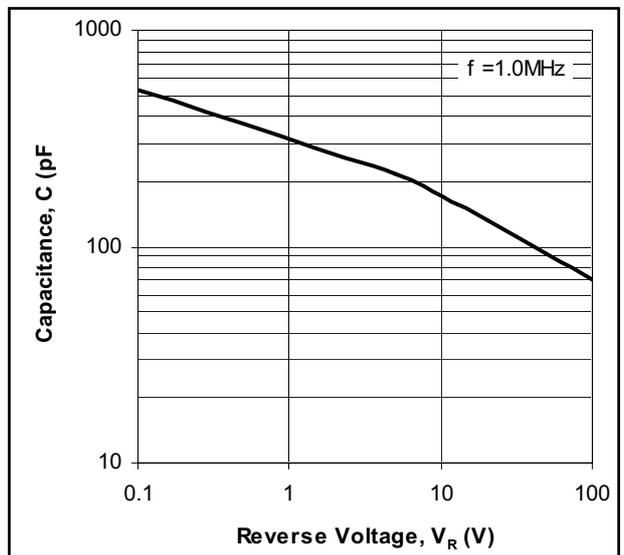


Figure 4. Typical Capacitance



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Ordering Information

Device	Packing
(Part Number)-BP	Bulk;1Kpcs/Box

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

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