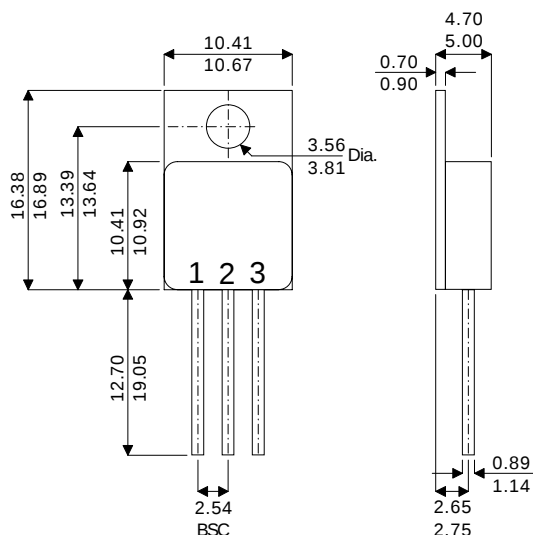


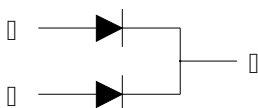
MECHANICAL DATA

Dimensions in mm



TO220 METAL PACKAGE

Common Cathode



1 = A₁ Anode 1

2 = K Cathode

3 = A₂ Anode 2

DUAL FAST RECOVERY RECTIFIER IN TO220 METAL PACKAGE FOR HI-REL APPLICATIONS

FEATURES

- HERMETIC TO220 METAL PACKAGE
- ISOLATED CASE

ABSOLUTE MAXIMUM RATINGS (T_{case} = 25°C unless otherwise stated)

V _{RRM}	Repetitive Peak Reverse Voltage		400V
V _{RSM}	Non Repetitive Peak Reverse Voltage		440V
I _{FRM}	Repetitive Peak Forward Current	t _p ≤ 10μs	130A
I _{F(RMS)}	RMS Forward Current		16A
I _{F(AV)}	Average Forward Current	δ = 0.5 , T _{case} = 105°C	8A
I _{FSM}	Non Repetitive Surge Forward Current	t _p = 10 ms (sinusoidal)	100A
P	Power Dissipation	T _{case} = 80°C	20W
T _j , T _{stg}	Storage and Junction Temperature Range		–40 to 150°C
R _{θJC}	Thermal Resistance Junction to Case		3.5°C / W



CAUTION — Electrostatic Sensitive Devices. Anti-Static Procedures Must Be Followed.

ELECTRICAL CHARACTERISTICS ($T_{amb} = 25^{\circ}\text{C}$ unless otherwise stated)

Parameter		Test Conditions		Min.	Typ.	Max.	Unit
STATIC CHARACTERISTICS							
V _F	Forward Voltage	I _F = 8A	T _j = 25°C			1.5	V
		I _F = 8A	T _j = 100°C			1.4	
I _R	Reverse Current	V _R = V _R RM	T _j = 25°C			1.5	μA
		V _R = V _R RM	T _j = 100°C			2.5	mA
RECOVERY CHARACTERISTICS							
t _{rr}	Reverse Recovery Time	I _F = 1A	V _R = 30V			75	ns
		di _F / dt = −15A/μs		T _j = 25°C			
		I _F = 0.5A	I _R = 1A			35	
		I _{rr} = 0.25A	T _j = 25°C				
TURN-OFF SWITCHING CHARACTERISTICS (Without Series Inductance)							
t _{IRM}	See figure 1	V _{CC} = 200V I _F = 0.5A	di _F / dt = −32A/μs			75	ns
			di _F / dt = −64A/μs		50		
I _{RM}	See figure 2	L _P ≤ 0.05μH T _j = 100°C	di _F / dt = −32A/μs			2.2	A
			di _F / dt = −64A/μs		2.8		
TURN-OFF OVERVOLTAGE COEFFICIENT (With Series Inductance)							
C = $\frac{V_{RP}}{V_{CC}}$		V _{CC} = 120V di _F / dt = −8A/μs L _P = 9μH	I _F = I _F (AV) T _j = 100°C Note 1		3.3		—

Notes

1. To evaluate the conduction losses use the following equations:

$$V_F = 1.1 + 0.024I_F$$

$$P = 1.1 \times I_{F(AV)} + 0.024I_{F(RMS)}^2$$

