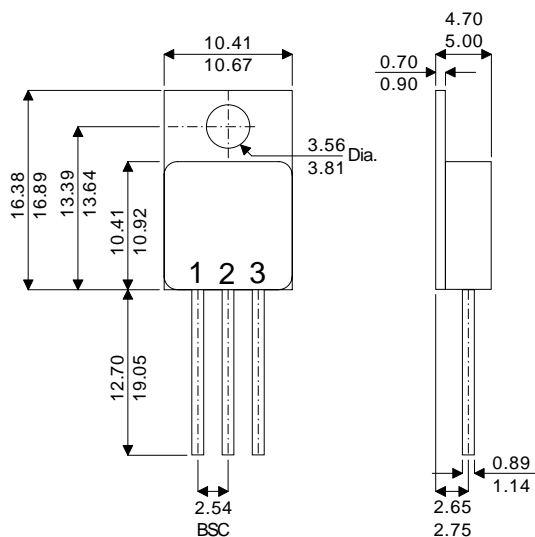


MECHANICAL DATA

Dimensions in mm



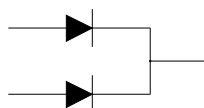
**DUAL FAST RECOVERY
RECTIFIER
IN TO220 METAL PACKAGE
FOR HI-REL APPLICATIONS**

FEATURES

- HERMETIC TO220 METAL PACKAGE
- ISOLATED CASE

TO220 METAL PACKAGE

Common Cathode



- 1 = A₁ Anode 1
- 2 = K Cathode
- 3 = A₂ Anode 2

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

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
STATIC CHARACTERISTICS					
V_F Forward Voltage	$I_F = 8A$ $T_j = 25^{\circ}C$			1.5	V
	$I_F = 8A$ $T_j = 100^{\circ}C$			1.4	
I_R Reverse Current	$V_R = V_{RRM}$ $T_j = 25^{\circ}C$			1.5	μA
	$V_R = V_{RRM}$ $T_j = 100^{\circ}C$			2.5	mA
RECOVERY CHARACTERISTICS					
t_{rr} Reverse Recovery Time	$I_F = 1A$ $V_R = 30V$ $di_F / dt = -15A/\mu s$ $T_j = 25^{\circ}C$			75	ns
	$I_F = 0.5A$ $I_R = 1A$ $I_{rr} = 0.25A$ $T_j = 25^{\circ}C$			35	
TURN-OFF SWITCHING CHARACTERISTICS (Without Series Inductance)					
t_{IRM} See figure 1	$V_{CC} = 200V$ $I_F = 0.5A$	$di_F / dt = -32A/\mu s$		75	ns
		$di_F / dt = -64A/\mu s$		50	
I_{RM} See figure 2	$L_P \leq 0.05\mu H$ $T_j = 100^{\circ}C$	$di_F / dt = -32A/\mu s$		2.2	A
		$di_F / dt = -64A/\mu s$		2.8	
TURN-OFF OVERVOLTAGE COEFFICIENT (With Series Inductance)					
$C = \frac{V_{RP}}{V_{CC}}$	$V_{CC} = 120V$ $di_F / dt = -8A/\mu s$ $L_P = 9\mu H$	$I_F = I_{F(AV)}$ $T_j = 100^{\circ}C$ Note 1		3.3	—

Notes

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

$$V_F = 1.1 + 0.024I_F$$

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

