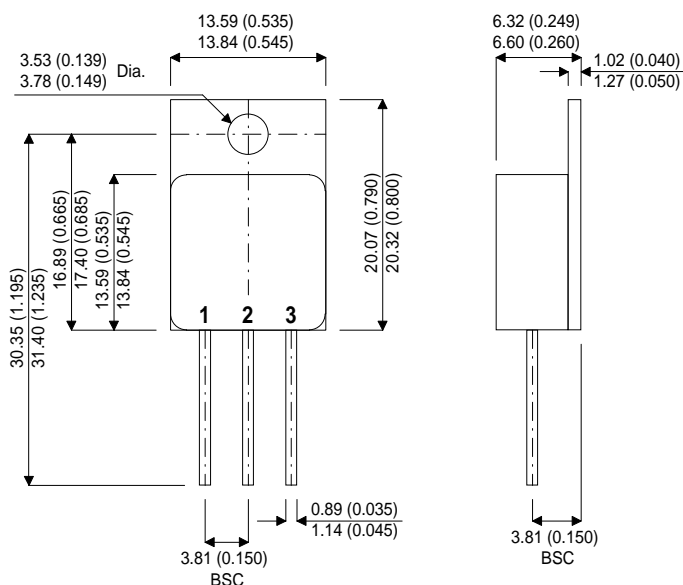


PRELIMINARY DATA

MECHANICAL DATA

Dimensions in mm (inches)



TO-254 Package.

Pin 1 – Cathode

Pin 2 – N/C

Pin 3 – Anode

FAST RECOVERY
EPITAXIAL DIODE
IN A HERMETIC TO-254
METAL PACKAGE

FEATURES

- LOW LOSSES AT HIGH SWITCHING FREQUENCIES
- HI-REL APPLICATIONS
- VERY FAST RECOVERY TIME
- LOW I_{RM} VALUES
- SOFT RECOVERY BEHAVIOUR

ABSOLUTE MAXIMUM RATINGS ($T_C = 25^\circ\text{C}$ unless otherwise stated)

I_{FRMS}	Maximum RMS Forward Current	$T_J = 150^\circ\text{C}$	70A
I_{FAVM}	Average Forward Current	$T_C = 85^\circ\text{C}$, pulse limited by T_{JM}	30A
I_{FRM}	Repetitive Peak Forward Current	$T_P < 10\mu\text{s}$	375A
I_{FSM}	Peak One Cycle Surge Forward Current	$T_J = 45^\circ\text{C}$ $t = 10\text{ms}$ (50Hz), Sine	200A
		$t = 8.3\text{ms}$ (60Hz), Sine	210A
I_{FSM}	Peak One Cycle Surge Forward Current	$T_J = 150^\circ\text{C}$ $t = 10\text{ms}$ (50Hz), Sine	185A
		$t = 8.3\text{ms}$ (60Hz), Sine	195A
$\int I^2 dt$	Integral $\int I^2 dt$ Rating	$T_J = 45^\circ\text{C}$ $t = 10\text{ms}$ (50Hz), Sine	200A
		$t = 8.3\text{ms}$ (60Hz), Sine	180A
P_D	Power Dissipation	$T_C = 85^\circ\text{C}$	TBA
T_J	Operating Temperature		-40 to +150°C
T_{JM}	Maximum Operating Junction Temperature		150°C
T_{STG}	Storage Temperature Range		-40 to +150°C

PRELIMINARY DATA

ELECTRICAL CHARACTERISTICS

Parameter	Test Conditions	Min.	Typ.	Max.	Units
I_R Reverse Leakage Current	$V_R = 800V$ $T_J = 25^\circ C$			250	μA
	$V_R = 800V$ $T_J = 125^\circ C$			7	mA
V_F Forward Voltage	$I_F = 36A$		$T_J = 25^\circ C$	2	V
			$T_J = 125^\circ C$	2.4	
t_{rr} Reverse Recovery Time	$I_F = 1A$ $di/dt = -15A/\mu s$	$V_R = 30V$ $T_J = 25^\circ C$		50	ns
I_{RM} Peak Reverse Current	$I_F = 30A$ $di_F/dt = -240A/\mu s$ $L \leq 0.05\mu H$	$V_R = 540V$ $T_J = 100^\circ C$		18	A
$R_{\theta JC}$ Thermal Resistance Junction – Case			TBA		$^\circ C/W$
$R_{\theta JA}$ Thermal Resistance Junction – Ambient			TBA		