

RoHS Compliant Product  
A suffix of "-C" specifies halogen free

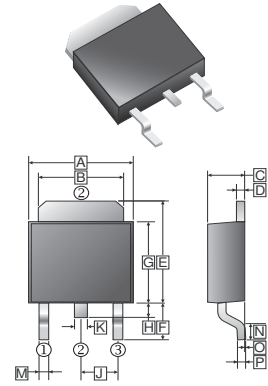
## FEATURES

- Fast switching for high efficiency
- Low forward voltage drop
- High current capability
- Low reverse leakage current
- High surge current capability

## MECHANICAL DATA

- Case: Molded plastic
- Plastic Materials used Carries Underwriters
- Laboratory Flammability Classification 94V-0
- Lead Temperature for Soldering Purposes :  
265°C Max. for 10 Seconds

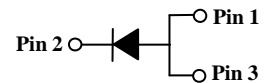
## TO-252



## PACKAGE INFORMATION

Package	MPQ	Leader Size
TO-252	2.5K	13' inch

REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	6.35	6.90	J	2.30 REF.	
B	4.95	5.50	K	0.64	1.14
C	2.10	2.50	M	0.50	1.14
D	0.43	0.9	N	1.3	1.8
E	6.0	7.5	O	0	0.13
F	2.80 REF.		P	0.58 REF.	
G	5.40	6.40			
H	0.60	1.20			



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load.  
For capacitive load, de-rate current by 20%.)

Parameter	Symbol	Rating	Unit
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	600	V
Working Peak Reverse Voltage	$V_{RSM}$	600	V
Maximum DC Blocking Voltage	$V_{DC}$	600	V
Maximum Average Forward Rectified Current	$I_F$	8	A
Peak Repetitive Forward Current	$I_{FM}$	35	A
Peak Forward Surge Current, 8.3 ms single half sine-wave	$I_{FSM}$	29	A
Typical Thermal Resistance	$R_{\theta JC}$	10	°C/W
Operating and Storage Temperature Range	$T_J, T_{STG}$	-55~150	°C

## ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Typ.	Max.	Unit	Test Condition
Maximum Instantaneous Forward Voltage	$V_F$	1.5	1.7	V	$I_F = 8 A, T_J = 25^\circ C$
		1.3	-		$I_F = 8 A, T_J = 125^\circ C$
Maximum DC Reverse Current at Rated DC Blocking Voltage <sup>3</sup>	$I_R$	0.002	0.2	mA	$T_J = 25^\circ C$
		-	20		$T_J = 100^\circ C$
Max. Reverse Recovery Time <sup>1</sup>	$T_{RR}$	22	35	nS	
Typical Junction Capacitance <sup>2</sup>	$C_J$	53	-	pF	

### NOTES:

1. Reverse recovery test conditions  $I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A$ .
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
3. Pulse Test : Pulse Width = 300  $\mu s$ , Duty Cycle  $\leq 2.0\%$ .

**RATINGS AND CHARACTERISTIC CURVES**

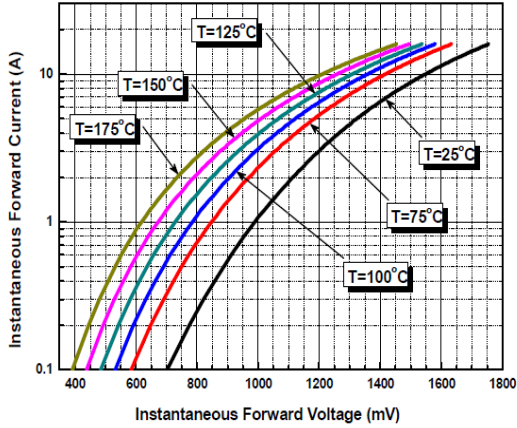


Figure 1. Typical Forward Characteristics per Diode

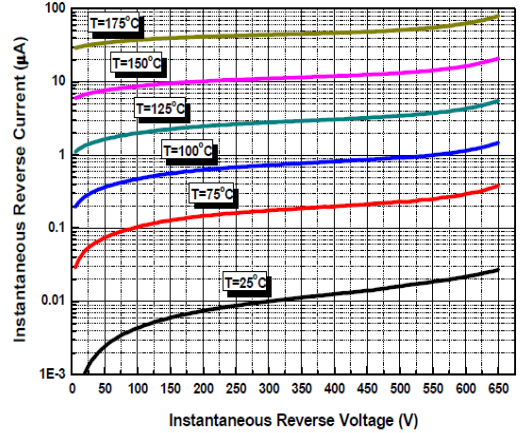


Figure 2. Typical Reverse Characteristics per Diode

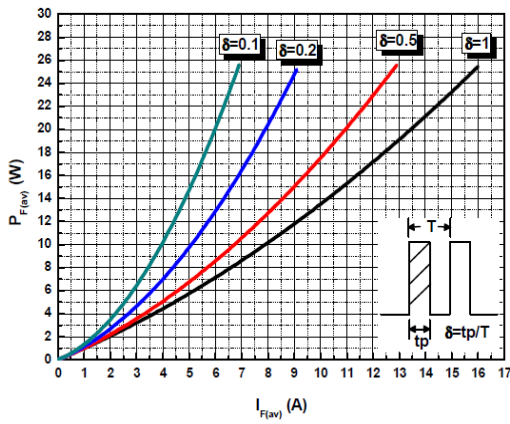


Figure 3. Average Forward Power Dissipation per Diode

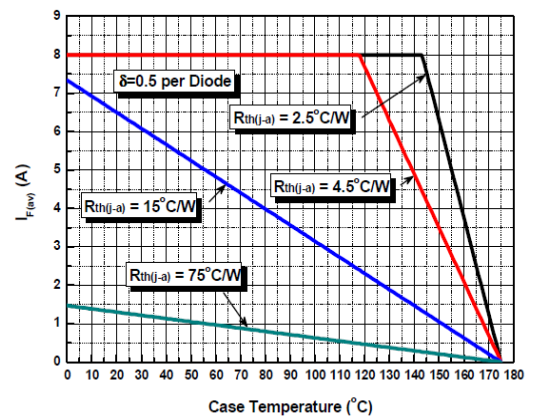


Figure 4. Current Derating Curves

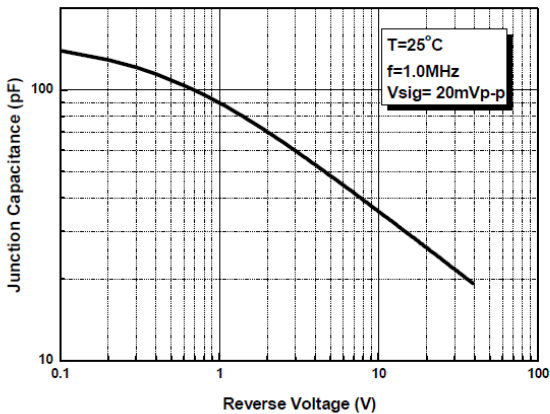


Figure 5. Typical Junction Capacitance per Diode