

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

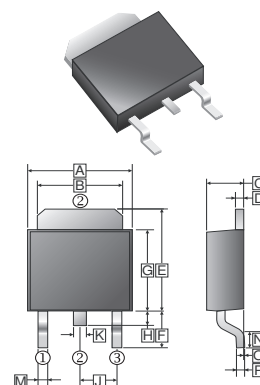
MECHANICAL DATA

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

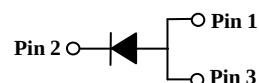
PACKAGE INFORMATION

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

TO-252



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	$I_F = 8\text{ A}, T_J = 25^\circ\text{C}$
		1.3	-		$I_F = 8\text{ A}, T_J = 125^\circ\text{C}$
Maximum DC Reverse Current at Rated DC Blocking Voltage ³	I_R	0.002	0.2	mA	$T_J = 25^\circ\text{C}$
		-	20		$T_J = 100^\circ\text{C}$
Max. Reverse Recovery Time ¹	T_{RR}	22	35	nS	
Typical Junction Capacitance ²	C_J	53	-	pF	

NOTES:

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

RATINGS AND CHARACTERISTIC CURVES

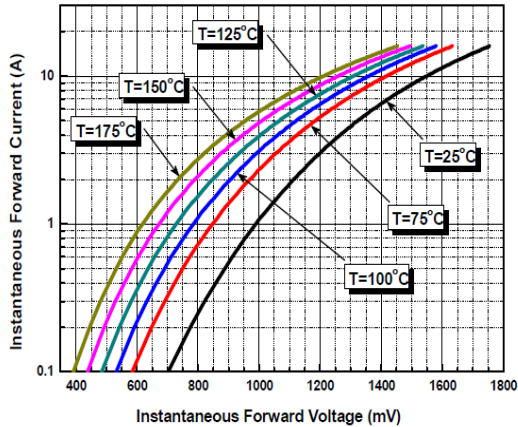


Figure 1. Typical Forward Characteristics per Diode

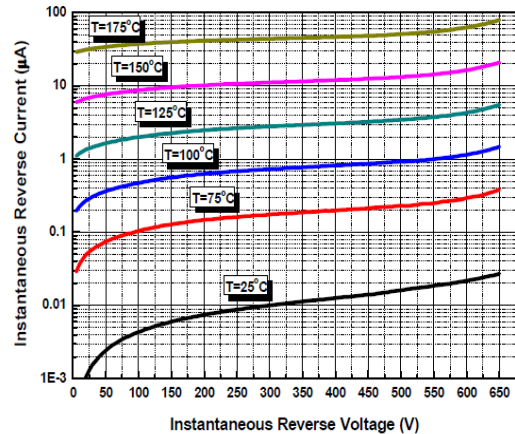


Figure 2. Typical Reverse Characteristics per Diode

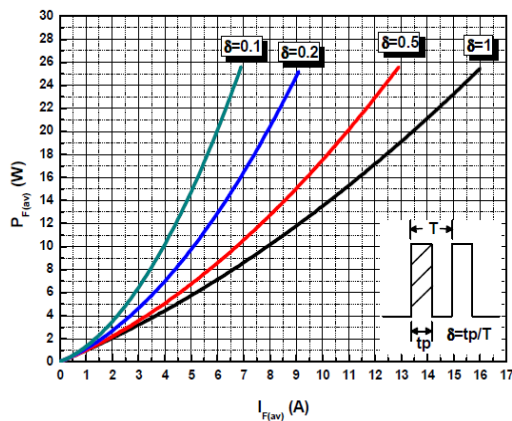


Figure 3. Average Forward Power Dissipation per Diode

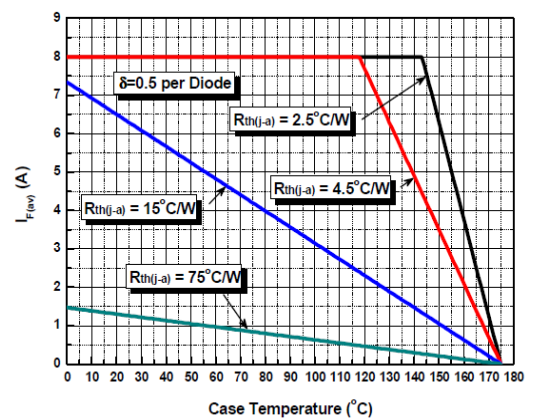


Figure 4. Current Derating Curves

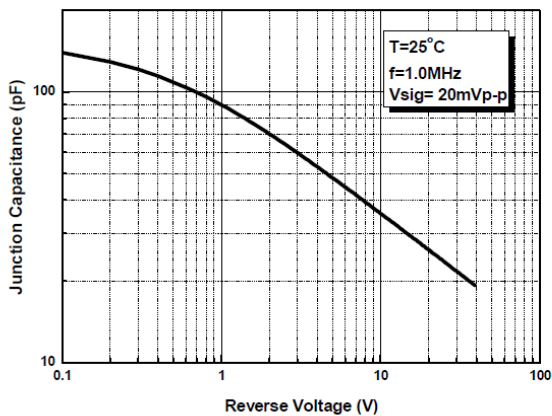


Figure 5. Typical Junction Capacitance per Diode