

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

**FEATURES**

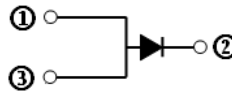
- High thermal reliability
- Patented Super Barrier Rectifier Technology
- High forward surge capability
- Ultra low power loss and high efficiency
- Excellent high temperature stability
- Plastic material-UL flammability 94V-0
- High current capability
- Low reverse current

**MECHANICAL DATA**

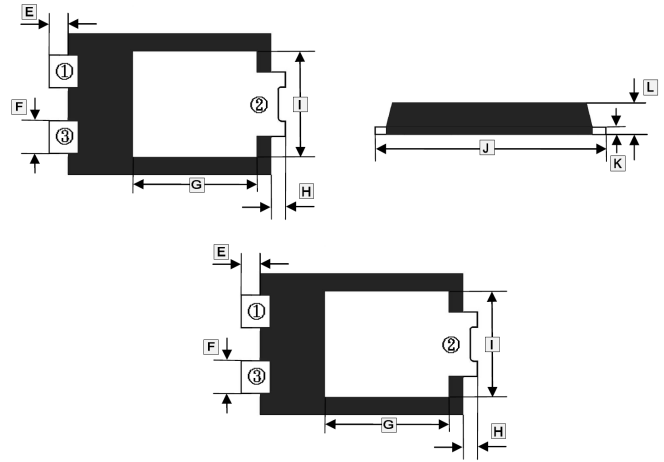
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals: Lead free Plating (Tin Finish) Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band

**PACKAGE INFORMATION**

Package	MPQ	Leader Size
TO-277D	5K	13 inch



**TO-277D**



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.65	1.95	G	3.25	3.85
B	5.3	5.5	H	0.45	0.65
C	1.7	1.9	I	2.9	3.2
D	3.8	4.2	J	6.4	6.6
E	0.45	0.65	K	0.3	0.45
F	0.8	1.0	L	1.0	1.2

**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	$V_{RRM}$	150	V
Working Peak Reverse Voltage	$V_{RSM}$	105	V
Maximum DC Blocking Voltage	$V_{DC}$	150	V
Maximum Average Forward Rectified Current	$I_F$	5	A
Peak Forward Surge Current, @8.3ms single half-wave Superimposed on rated load (JEDEC method)	$I_{FSM}$	80	A
Typical Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	80	°C / W
Typical Thermal Resistance from Junction to Lead	$R_{\theta JL}$	10	°C / W
Operating and Storage Temperature Range	$T_J, T_{STG}$	150, -50~150	°C

**ELECTRICAL CHARACTERISTICS**

Parameter	Symbol	Typ.	Max.	Unit	Test Condition
Maximum Instantaneous Forward Voltage	$V_F$	0.62	-	V	$I_F=1A, T_J=25^\circ C$
		0.74	-		$I_F=3A, T_J=25^\circ C$
		-	0.84		$I_F=5A, T_J=25^\circ C$
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	-	0.2	mA	$T_J=25^\circ C$
		-	50		$T_J=100^\circ C$
Typical Junction Capacitance <sup>1</sup>	$C_J$	280	-	pF	

Note:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

**RATINGS AND CHARACTERISTIC CURVES**

FIG. 1-Typical Forward Current Derating Curve

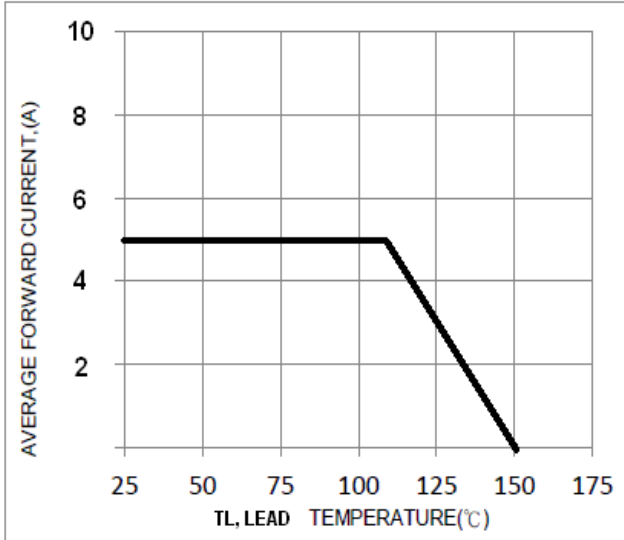


FIG. 2-Typical Forward Characteristics

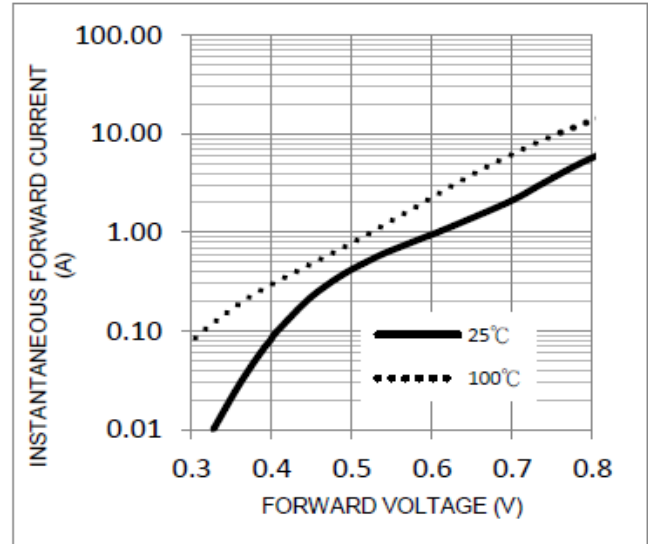


FIG. 3-Maximum Non-Repetitive Forward Surge Current

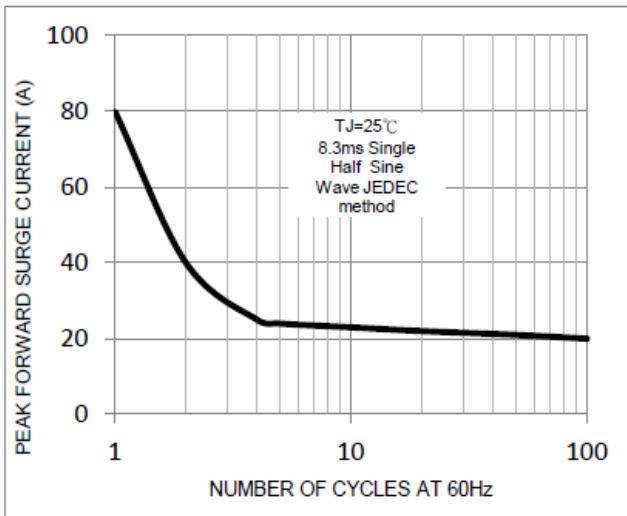


FIG. 4-Typical Reverse Characteristics

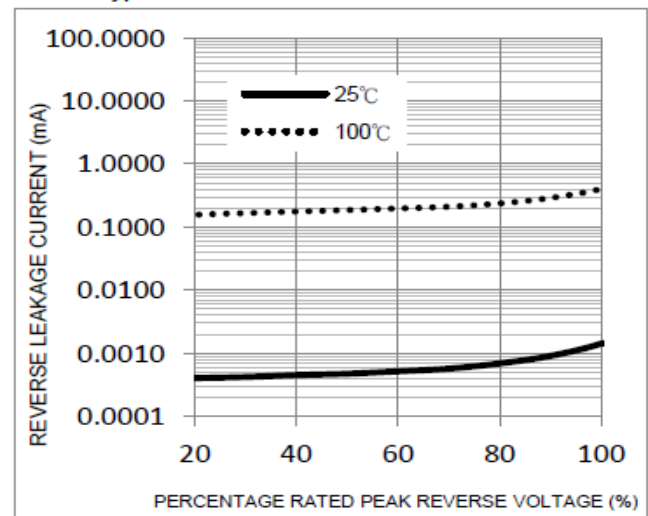


FIG. 5-Typical Junction Capacitance

