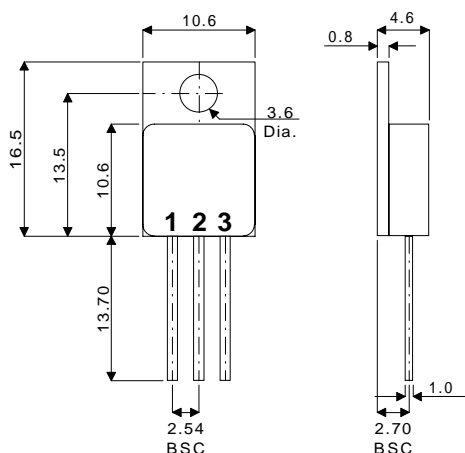


**MECHANICAL DATA**

Dimensions in mm



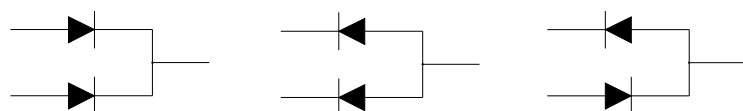
**TO220 METAL PACKAGE**

**DUAL SCHOTTKY  
 BARRIER DIODE  
 IN TO220 METAL PACKAGE  
 FOR HI-REL APPLICATIONS**

**FEATURES**

- HERMETIC TO220 METAL PACKAGE
- ISOLATED CASE
- SCREENING OPTIONS AVAILABLE
- OUTPUT CURRENT 30A
- LOW  $V_F$  ( $V_F < 0.6V$ )
- LOW LEAKAGE

**Common Cathode**      **Common Anode**      **Series Connection**  
**BYV143-xxM**          **BYV143-xxAM**          **BYV143-xxRM**



1 = A <sub>1</sub> Anode 1	1 = K <sub>1</sub> Cathode 1	1 = K <sub>1</sub> Cathode 1
2 = K Cathode	2 = A Anode	2 = Centre Tap
3 = A <sub>2</sub> Anode 2	3 = K <sub>2</sub> Cathode 2	3 = A <sub>2</sub> Anode

**ABSOLUTE MAXIMUM RATINGS** ( $T_{case} = 25^{\circ}C$  unless otherwise stated)

		BYV143-40M	BYV143-45M
$V_{RRM}$	Peak Repetitive Reverse Voltage	40V	45V
$V_{RWM}$	Crest Working Reverse Voltage	40V	45V
$V_R$	Continuous Reverse Voltage	40V	45V
$I_O$	Output Current ( $\delta = 0.5$ )	30A	
$I_{F(RMS)}$	Forward RMS Current	40A	
$I_{FRM}$	Repetitive Peak Forward Current	250A	
$I_{FSM}$	Non Repetitive Peak Forward Current (per diode)	$t = 10$ ms	200A
$I_{FSM}$	Non Repetitive Peak Forward Current (per diode)	$t = 8.3$ ms	220A
$I^2T$	$I^2T$ for fusing (per diode)	$t = 10$ ms	$200A^2s$
$I_{RRM}$	Reverse Surge Current	$t_p = 2 \mu s$ $\delta = 0.001$	2A
$I_{RSM}$	Reverse Surge Current	$t_p = 100 \mu s$	2A
$T_{stg}$	Storage Temperature Range	-65 to 150°C	
$T_j$	Maximum Operating Junction Temperature	150°C	

**ELECTRICAL CHARACTERISTICS** (Per Diode)

Parameter		Test Conditions		Min.	Typ.	Max.	Unit
V <sub>F</sub>	Forward Voltage	I <sub>F</sub> = 15A	T <sub>j</sub> = 150°C			0.6	V
		I <sub>F</sub> = 20A	T <sub>j</sub> = 25°C			0.8	V
I <sub>R</sub>	Reverse Current	V <sub>R</sub> = V <sub>RWM(Max)</sub>	T <sub>j</sub> = 125°C			30	mA
		V <sub>R</sub> = V <sub>RWM(Max)</sub>	T <sub>j</sub> = 25°C			500	μA
C <sub>d</sub>	Junction Capacitance	V <sub>R</sub> = 5 V	f = 1 MHz		500		pF

**THERMAL CHARACTERISTICS**

Parameter			Min.	Typ.	Max.	Unit
R <sub>θJC</sub>	Thermal Resistance Junction to Case	(Both Diodes)			1.4	°C / W
		(Per Diode)			2.3	
R <sub>θJA</sub>	Thermal Resistance Junction to Ambient				60	