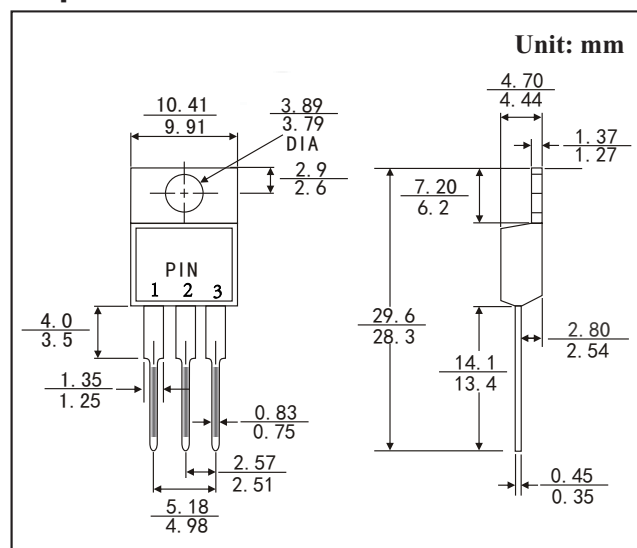


TO-220AB Plastic-Encapsulate Transistors
FEATURES

- Ultra Low Forward Voltage Drop
- Excellent High Temperature Stability
- Patented Super Barrier Rectifier Technology
Soft, Fast Switching Capability
- Case Material: Molded Plastic, UL Flammability
Classification Rating 94V-0

MECHANICAL DATA

- Case: TO-220AB molded plastic body
- Terminals: Matte Tin Finish annealed over Copper
leadframe Solderable per MIL-STD-202, Method 208


MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	100	V
Maximum rms voltage	V_{RMS}	70	V
Maximum average forward rectified current	$I_{F(AV)}$	40 20	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	300	A
Typical thermal resistance per diode	$R_{\theta JC}$	2	°C/W
Operating junction temperature range	T_J	-55 to + 150	°C
Storage temperature range	T_{STG}	-55 to + 150	°C

Note : 1. Mounted on infinite heatsink.

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Breakdown voltage per diode	V_{BR}	$I_R=0.5mA$	100	-	-	V
Instantaneous forward voltage per diode	V_F	$I_F=5A$ $I_F=10A$ $I_F=20A$ $T_J=25^\circ C$	-	0.46 0.55 0.65	- - 0.70	V
		$I_F=5A$ $I_F=10A$ $I_F=20A$ $T_J=125^\circ C$	-	0.38 0.50 0.55	- - -	V
		$V_R=70V$	-	5 6	- -	μA mA
		$V_R=100V$ $T_J=25^\circ C$ $T_J=125^\circ C$	- -	- 12	100 -	μA mA

RATINGS AND CHARACTERISTIC CURVES

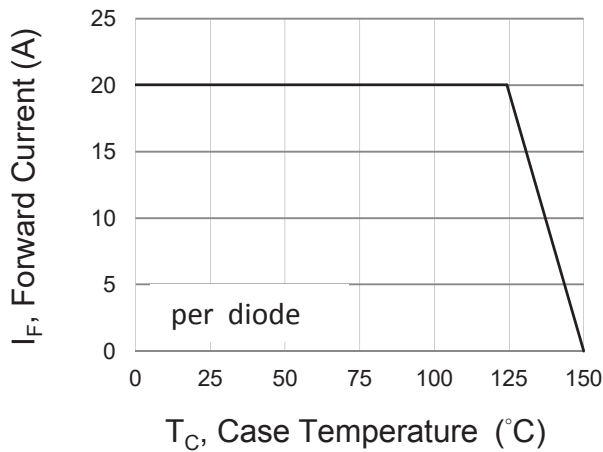


Fig.1 Forward Current Derating Curve

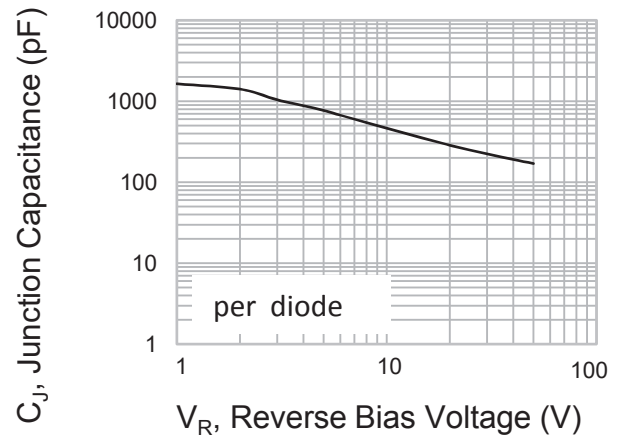


Fig.2 Typical Junction Capacitance

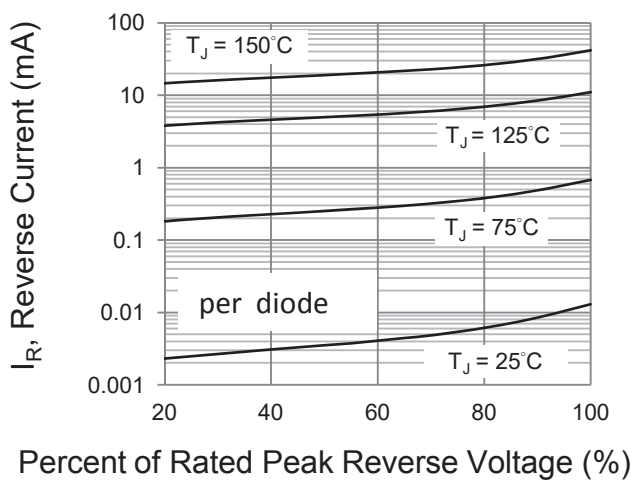


Fig.3 Typical Reverse Characteristics

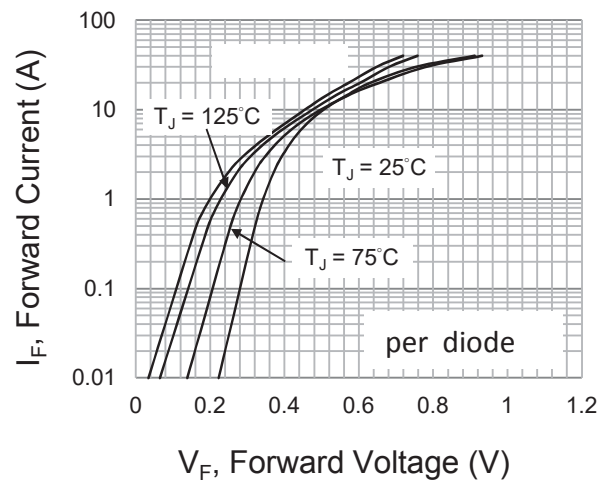


Fig.4 Typical Forward Characteristics