MN638SVL-RPT0TL

Silicon NPN Darlington Power Transistor

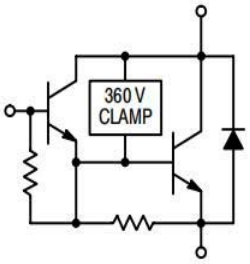
AUTOPROTECTED
DARLINGTON
10 AMPERES
360–450 VOLTS CLAMP
150 WATTS

DESCRIPTION

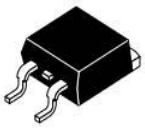
- Low Collector Saturation Voltage
- High DC Current Gain
- High Reliability

APPLICATIONS

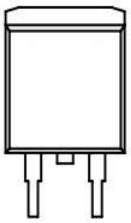
- Audio power amplifiers
- Relay & solenoid drivers
- Motor controls
- General purpose power amplifiers
- Including zener diode



MARKING DIAGRAM



D²PAK
CASE 418B
STYLE 1



ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	450	V
$V_{CEO(SUS)}$	Collector-Emitter Voltage	350	V
V_{EBO}	Emitter-Base Voltage	6	V
V_Z	Zener Voltage	350	V
I_C	Collector Current-Continuous	10	A
I_B	Base Current-Continuous	3.0	A
P_C	Collector Power Dissipation @ T_C=25℃	150	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-40~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	1.0	℃/W

Ordering Information

Product	Package	Packaging
MN638SVL-RPT0TL	TO-263	Tube

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V_Z	Zener Voltage	I_Z= 0.1mA	350		450	V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 5mA; I_C= 0	6			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 4A; I_B= 15mA			1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 4A; I_B= 15mA			2.0	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 350V; I_E= 0			0.1	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 6V; I_C=0			5	mA
h_{FE}	DC Current Gain	I_C= 4A; V_{CE}= 5V	500		4000	