

SCR

BT152

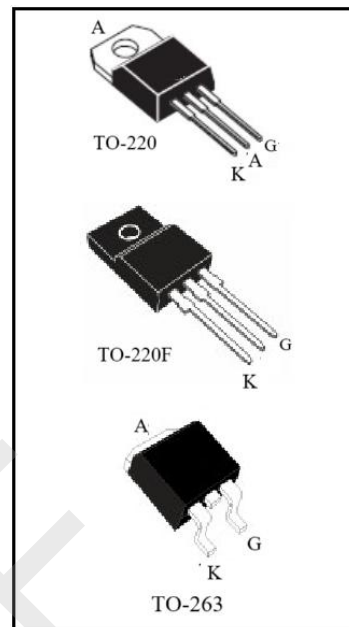
FEATURES

- High thermal cycling performance
- High voltage capability
- Planar passivated for voltage ruggedness and reliability
- high current surge capability

APPLICATIONS

- Ignition circuits
- Motor control
- Protection circuits
- Voltage regulation

SYMBOL



ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	VALUE		UNIT
Repetitive Peak Off-State Voltages	V_{DRM}, V_{RRM}	BT152-600	600	V
		BT152-800	800	
RMS on-State Current	$I_{T(RMS)}$	16		A
Non-Repetitive Peak On-State Current	I_{TSM}	160		A
Peak gate current	I_{GM}	5		A
Peak gate voltage	V_{GM}	5.0		V
Peak reverses gate voltage	V_{RGM}	5		V
Peak Gate Power	$P_{G(AV)}$	1		W
Peak Gate Voltage	P_{GM}	20		W
I^2t for fusing	I^2t	100		A^2s
rate of rise of on-state current	di/dt	50		$A/\mu s$
Operating junction temperature	T_J	$-40 \sim +125$		$^{\circ}C$
Storage Temperature	T_{STG}	$-40 \sim +150$		$^{\circ}C$

ELECTRICAL CHARACTERISTICS (T_J=25°C)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Peak Repetitive Forward Blocking Current	I_{DRM}	$V_D = V_{DRM}$			10	uA
Peak Repetitive Reverse Blocking Current	I_{RRM}	$V_D = V_{RRM};$			10	uA
Gate Trigger Current	I_{GT}	$V_D=12V, R_L=100\Omega$			25	mA
Gate Trigger Voltage	V_{GT}	$V_D=12V, R_L=100\Omega$			1.0	V
Peak Forward On-State Voltage	V_{TM}	$I_T= 24A, I_G=50mA$			1.6	V
Non-Trigger Gate Voltage	V_{GD}	$V_D=V_{DRM},$ $R_{GK}=1K\Omega, R_L=3.3K\Omega$	0.25			V
Latch Current	I_L	$I_G = 1.2 I_{GT}$			50	mA
Holding Current	I_H	$I_T= 500mA$			25	mA
Critical Rate of Rise of Off-State Voltage	dV/dt	$V_D=67\%V_{DRM},$ $R_{GK}=1k\Omega,$	400			V/ μ s